Service Manual

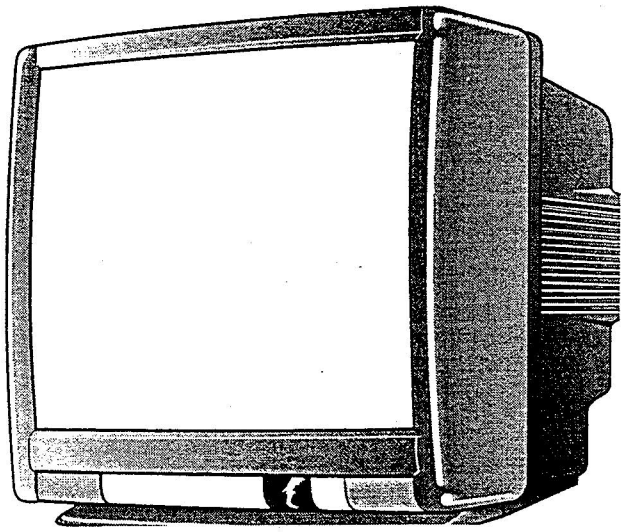
SANYO

Models **C2581TX-P**
C2881TX-P

Colour Television

CRT 25" A59ECF50X05
CRT 28" A66ECF50X05

CHASSIS No 2092
EC4B



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Give complete "SERVICE PART No" for parts order or servicing, it is shown on the rating sheet on the cabinet back of the TV set.

Note
This TV receiver will not work properly in foreign countries where the television transmission system and power source differ from the design specifications. Refer to the specifications for the design specifications.

19/1/1998

Ref. Nº MS C2581TX-P

1.-SAFETY INSTRUCTIONS.

Read this page before doing any operation of adjustment, maintenance or repair the TV set described.

Only skilled personnel of Sanyo Technical Service should do the adjustment, maintenance or repair of TV set.

1.1.- WARNING.

For the correct and safe use of the TV set, it is essential that the service personnel follow the process of safety generally accepted and the safety precautions specified in this manual.

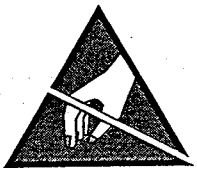
An isolation transformer should be connected in the power line between the receiver and the AC line when a service is performed on the primary side of the converter transformer of the set.

1.2.- PRECAUTION AGAINST X-RAYS.

The primary source of X-RADIATION in the television receiver is the picture tube. The picture tube is specially constructed to limit X-RADIATION emissions. For continued X-RADIATION protection, the replacement tube must be the same type as the original including suffix letter. Excessive high voltage may produce potentially hazardous X-RADIATION. To avoid such hazards, the high voltage must be maintained within specified limit. If high voltage exceeds specified limits, take necessary corrective action. Carefully follow the instructions for +B1 volt power supply adjustment, and high voltage adjustment to maintain the high voltage within the specified limits.

COMPLIANCE TO STANDARDS

All of those marked with ✳ or ⚠ must be replaced with original parts



WARNING! This TV set contains components which are particularly sensitive to static electricity (ESD). It is recommended that all due precaution be taken handling integrated circuits and semiconductors.

2.-TECHNICAL CHARACTERISTICS

Cathode-ray tubes	In-Line gun type , Black Matrix. 25" (65 cm)/28" (70 cm)
Tuning-system	Voltage synthesis, 50 programs in non-volatile memory, AFT, fine tuning, automatic, semiautomatic and manual channel-search.
Program selection	Sequential selection from the controls on the set. Direct selection of any program from the remote-control device.
Receiving channel	E2.....E4; S1.....S10 E5.....E12; S11.....S41 E21.....E69
Reception system	Systems D/K and B/G
Colour system	PAL
Audio Power	Power-rating 4,5 watts. (RMS) 10% Distortion
Number of speakers	1 woofer 16 ohm and 1 tweeter 16 ohm.
Aerial	External aerial-socket 75 ohms IEC.
Jack for Headphones	Mono Jack 3,5 mm.
AV connectors	1 Scart connector 21-pin standard CENELEC AV/RGB. 1 RCA type video input (Front) 1 RCA type audio input (Front)
Power source	220V.....240V. AC 50 Hz
Power consumption	102 Watts. (maximum consumption). 5 Watts. (Stand-by condition)
Clock function	
Timer function	Switch on, off and alarm time delay are programmable in OSD over 24 hours.
Teletext	Flof and List 1.5 level. Polish TXT included.
Hotel mode	This TV set has the possibility of being programmed in Hotel mode.

2.1.-SAFETY.

It fulfils the safety requirements established in the regulation.

- EN 60065:1993.

2.2.-EMC (Electromagnetic Compatibility).

It fulfils the EMC requirements established in the regulation.

- EN 55013:1990.
- EN 55013:1990/A12:1994
- EN 55020:1994.
- EN 60555-2:1987.

3.-SPECIAL MODE FOR FACTORY

The factory mode is a special TV working mode, thought to aid the manufacturing process and it is identified the message "FACTORY". This mode is not intended for customer use..

The Factory mode differences with respect to normal mode are the followings:

1.- The TV set does not pass to standby mode after 10 min. without aerial signal input. Instead it remains switched on.
2.- The adjustments speed is four times quicker.
3.- The standby mode is disabled.

To take TV set out of Factory mode, push the key ***TIMER*** of remote control.

4.- CONFIGURATION CODE OPTIONS(OPCODE)

The Opcode in this models is **22** (D/K and B/G with Polish TXT).

In order to see the present Opcode in NVM, you have to short circuit JO102 with R122. Then the code will appear in screen during several seconds. In this time it is possible to change it by using the numerical keys of remote control.

5.-PROCEDURE OF NON VOLATILE MEMORY (NVM) REPLACEMENT, IC125:

In case of servicing, after NVM replacement, the following points must be checked:

- The Opcode (configuration code) is the right one.

Described in point 4

- The TV is not in FACTORY mode.

Described in point 3

- The Hotel mode is correct.

Described in point 6

- The picture and sound adjustments are correct

Described in point 10

- The OSD phase adjustment is correct.

Described in point 10

6.-DESCRIPTION OF HOTEL MODE.

By defect the TV set switches on with the program in which is was switched off, but it is also possible to force it to switch on in a program that can be chosen between the 1 and 8 or AV.

The TV set has a special mode of operation that is adapted for use in hotels, hospitals, etc. In this case the maximum volume level is limited to the volume chosen when the hotel mode is enabled. Furthermore, in this mode it is not possible to do channel searching neither to modify the fine tuning control.
These software configurations are stored in the non volatile memory and therefore they remain even though the TV set is disconnected from the power supply. The Hotel mode configuration can be changed by pushing the ***SET*** front key and without loosing it, pushing the key ***SIZE*** of remote control.

00 HOTEL

The first, most significant digit indicates weather Hotel mode is chosen or not

0 ⇨ Normal mode
1 ⇨ Hotel mode

The last, least significant digit indicates the programme in which the set switches on

0 ⇨ The same as it was selected when the TV set was switched off.
1 ⇨ Always programme position 1.
2 ⇨ Always programme position 2.

.....

8 ⇨ Always programme position 8.
9 ⇨ Always AV mode.

The wanted code should be introduced with the numerical keys of remote control. Always to push the complete code.

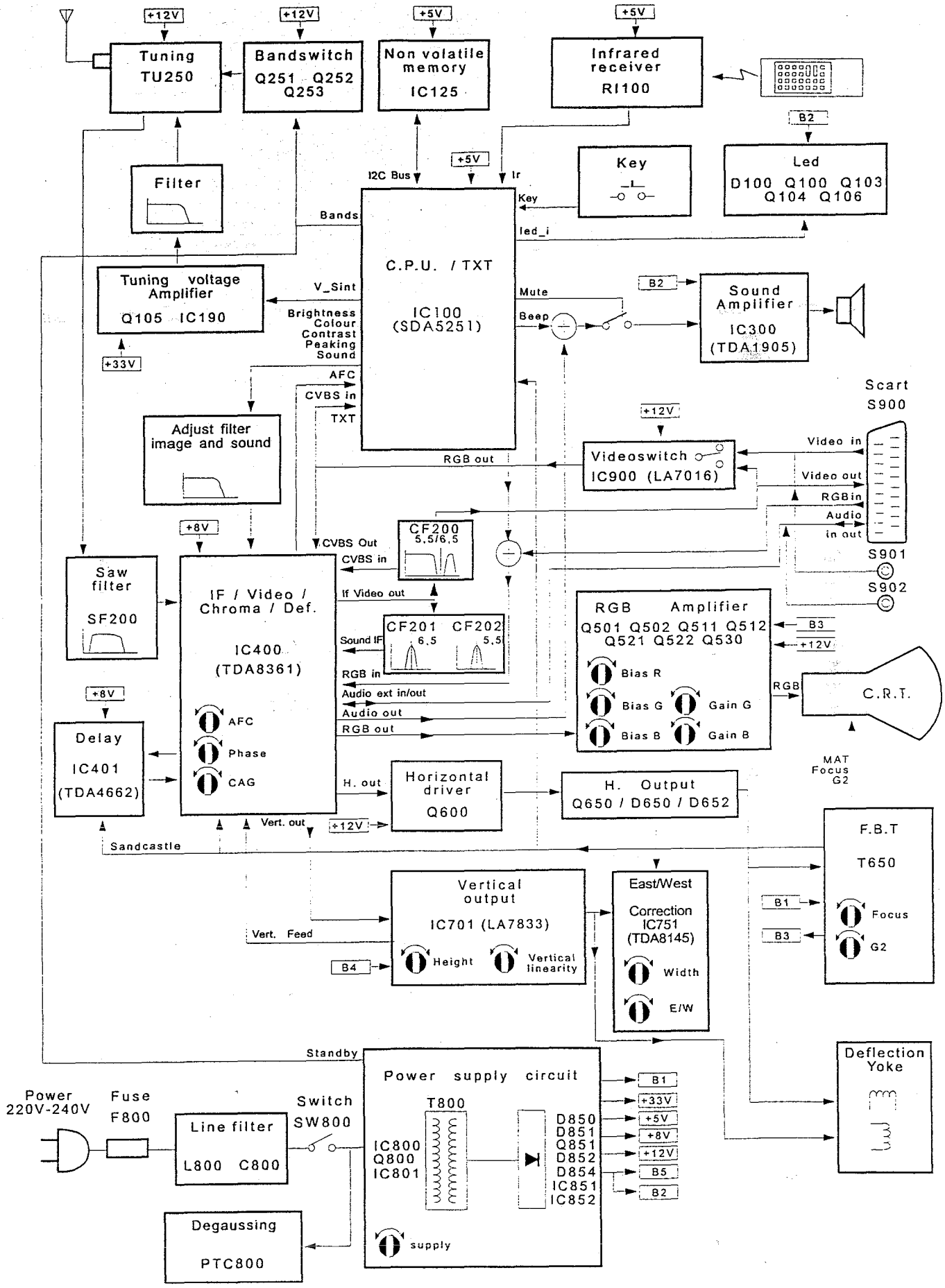
Example:

00 ⇨ Normal mode. Switches on with the same programme selected when the TV set was switched off.
10 ⇨ Hotel mode. Switches on with the same programme selected when the TV set was switched off.
11 ⇨ Hotel mode. Always switches on in programme 1
09 ⇨ Normal mode. Always switches on in AV mode

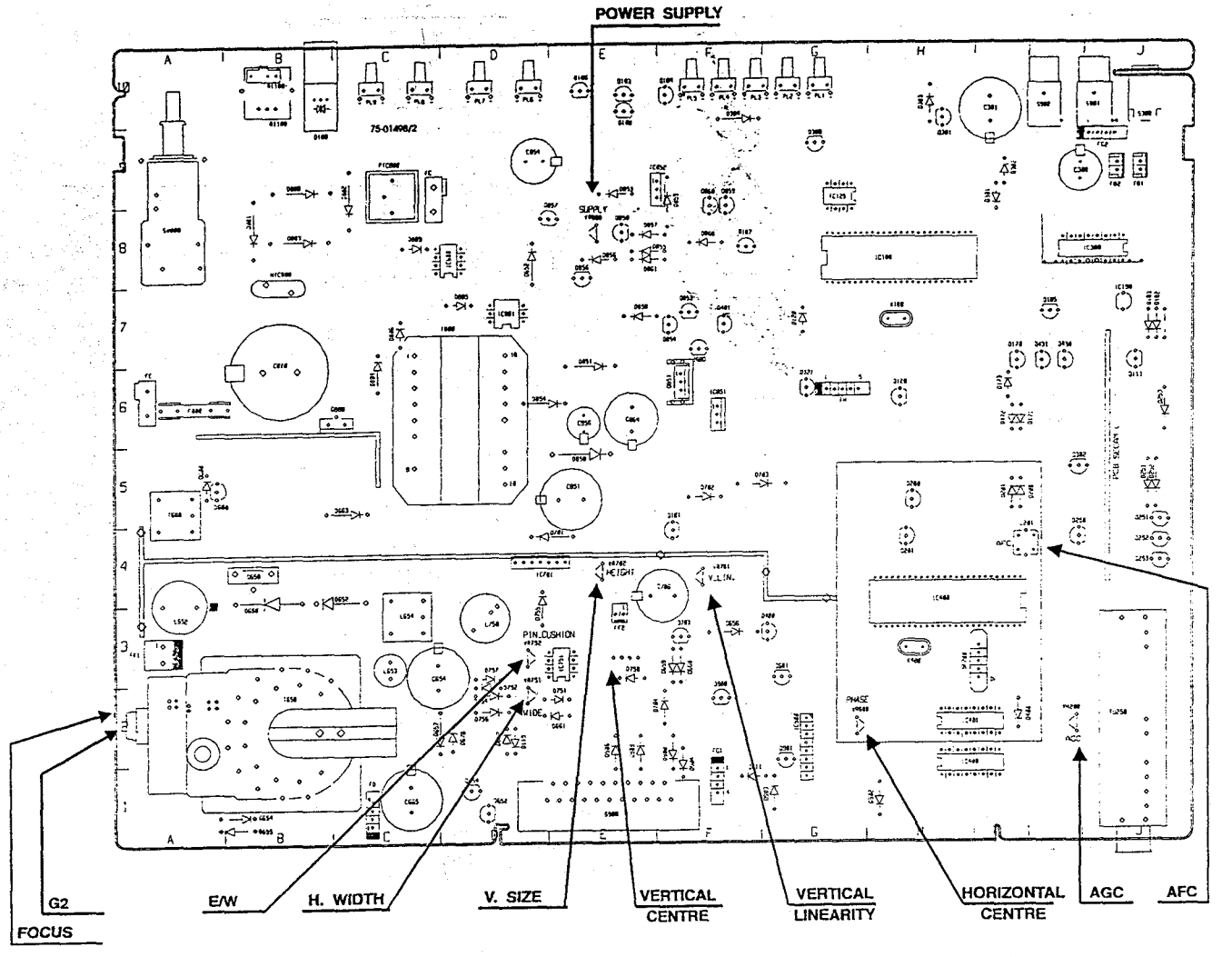
7.-ACTIVATION OF THE INITIAL AUTOMATIC CHANNEL-SEARCH.

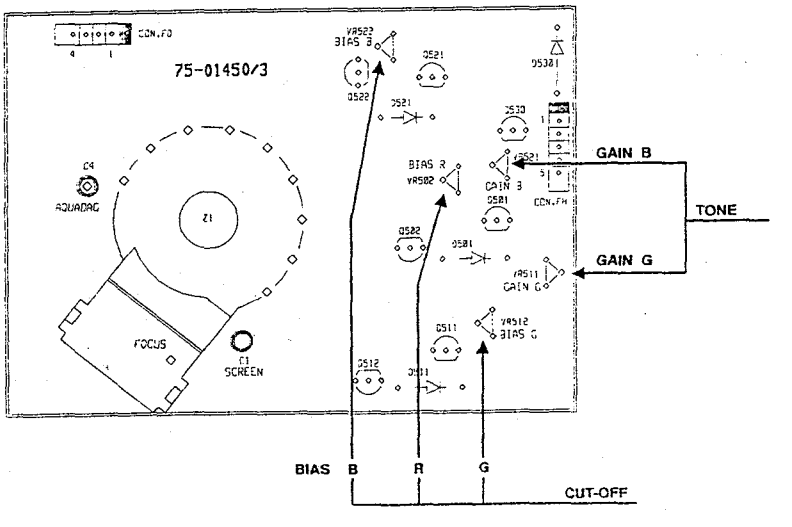
In order to reset the initial automatic channel-search function, enter the tuning menu by keeping pushed the frontal **SET** key for a few seconds. Afterwards select the AUTO tuning mode by pushing several times the **SET** key. Then push the + or - key to start searching and switch-off the TV set before any station is found. When the TV set is switched on again it will remain in the same situation as when it was switched off.

8.- BLOCK DIAGRAM



9.- SERVICE ADJUSMENT LOCATIONS





10.- ADJUSTMENT.

ADJUST ORDER	ADJUSTMENT	SIGNAL	CONDITIONS	TEST POINT	ADJUSTMENT	SPECIAL FEATURES	INSTRUMENT
1	B1 Power supply	Circular pattern	Picture TV: Normal ❶ Sound: Volume to minimum	B1 Cathode D-850	VR800	Adjust VR800 to obtain: +145V. ±0.5V	DC Voltmeter Resolution >0,1V.
2.A	IF Detector AFC	IF Signal 38,9MHz into JO200	Level of apply IF signal (38,9MHz) of 80 to 250 mVrms on 75Ω in synchronise.	AFC_OUT R111	L201	Adjust L201 to obtain a voltage of 3,5V. ±0,2V. ❸ The aerial should be disconnected so that it does not interfere with the applied IF signal	IF Generator. DC Voltmeter Resolution> 0,1V.
2.B	AGC	Test pattern Band III Channel 10	Level of aerial signal 60,0 dBμV. (1.0 mVrms.)	AGC 5 pin TU250	VR200	Adjust VR200 to obtain a voltage of 8V ± 0.2V.	Pattern generator DC Voltmeter Resolution> 0,1V.
3.A	Vertical size	Circular pattern	TV controls: Normal ❶	CRT screen	VR702	Adjust VR702 to make the picture cover the whole screen vertically and to get the battlements hidden	Visual adjust
3.B	Vertical linearity	Circular pattern	TV controls: Normal ❶	CRT screen	VR701	Adjust VR701 to achieve equal length for the upper and lower radius of the circle in vertical direction.	Visual adjust
3.C	Vertical centre	Circular pattern	TV controls: Normal ❶	CRT screen North Orientation	JO712 JO713	In case the picture is shifted up or down more than of 2mm. from screen centre, resistor JO713 or JO712 respectively should be cut. Readjust vertical size if necessary.	Visual adjust
4.A	Horizontal width	Circular pattern	TV controls: Normal ❶	CRT screen	VR751	Adjust VR751 so that the picture covers the whole screen horizontally and the battlements are hidden.	Visual adjust
4.B	E/W	Circular pattern	TV controls: Normal ❶	CRT screen	VR752	Adjust VR752 to correct pin cushion distortion, and obtain straight vertical lines.	Visual adjust
4.C	Horizontal centre	Circular pattern	TV controls: Normal ❶	CRT screen	VR600	Adjust VR600 to centre the picture in horizontal direction. Readjust horizontal width if necessary.	Visual adjust
5.A	Cut-off preadjustment	AV Mode Without signal	Brightness controls: Adjust ❹ G2 to minimum.		VR502 VR512 VR522	Turn the potentiometers completely anticlockwise (seen from solder side)	
5.B	G2	AV Mode Without signal	Brightness controls: Adjust ❹ G2 to minimum. Service Line ❷	CRT screen	G2 Potentiometer	Set the G2 voltage for one colour to be just visible.	Visual adjust
5.C	Cut-off	AV Mode Without signal	Brightness controls: Adjust ❹ Service Line ❷	CRT screen	VR502 VR512 VR522	Adjust the potentiometers corresponding to those cathodes that are not conducting, in order to obtain a tenuous line without colour tone (White)	Visual adjust
5.D	Tone	Circular pattern	Colour to minimum and rest of controls in normal ❶	CRT screen	VR511 VR521	The potentiometers must be adjusted in order to obtain an acceptable colour tone. In case of doubt, they must be adj	Visual adjust
6	Focus	Circular pattern	TV controls: Normal ❶	CRT screen	FOCUS	Adjust to obtain the best possible focusing in the centre of screen.	Visual adjust
7	Phase of OSD	Circular pattern	TV controls: Normal ❶ OPCODE menu. Described point 4	CRT screen	Sound + and -	Adjust to align the OSD vertical bar with the picture centre.	Visual adjust

10.1.- Notes about the adjustment:

In case of doing several adjustments follow the adjustment order in this table, for example, the adjusts N°2 (detector AFC and AGC) prevails over the N°6 (FOCUS), adjustment N°5B (G2) prevails over the N°5C (Cut-off).

❶ Factory picture control normal has the following OSD positions:

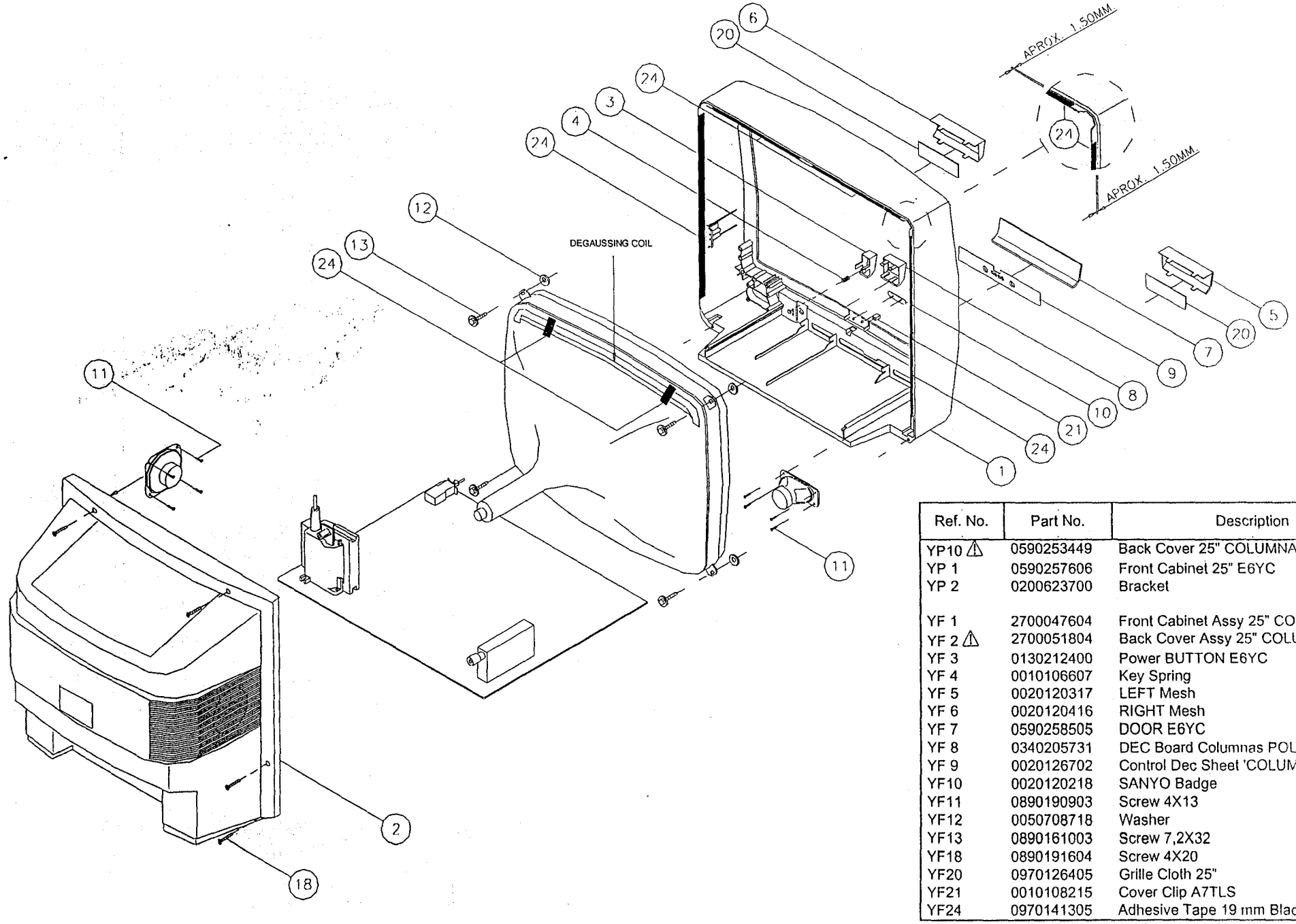
- **Brightness:** 34 (Push key "+" 34 times starting at minimum position.)
- **Contrast:** 57
- **Colour:** 36

❷ The service line is obtained by shorting the test point (R718-C713) to ground.

❸ There can be found 2 positions of the L201 core for which the voltage in R211 is of 3,5V, but the only correct position is that in which that the voltage goes up as the core is introduced in the body of de L201, and the picture is acceptable.

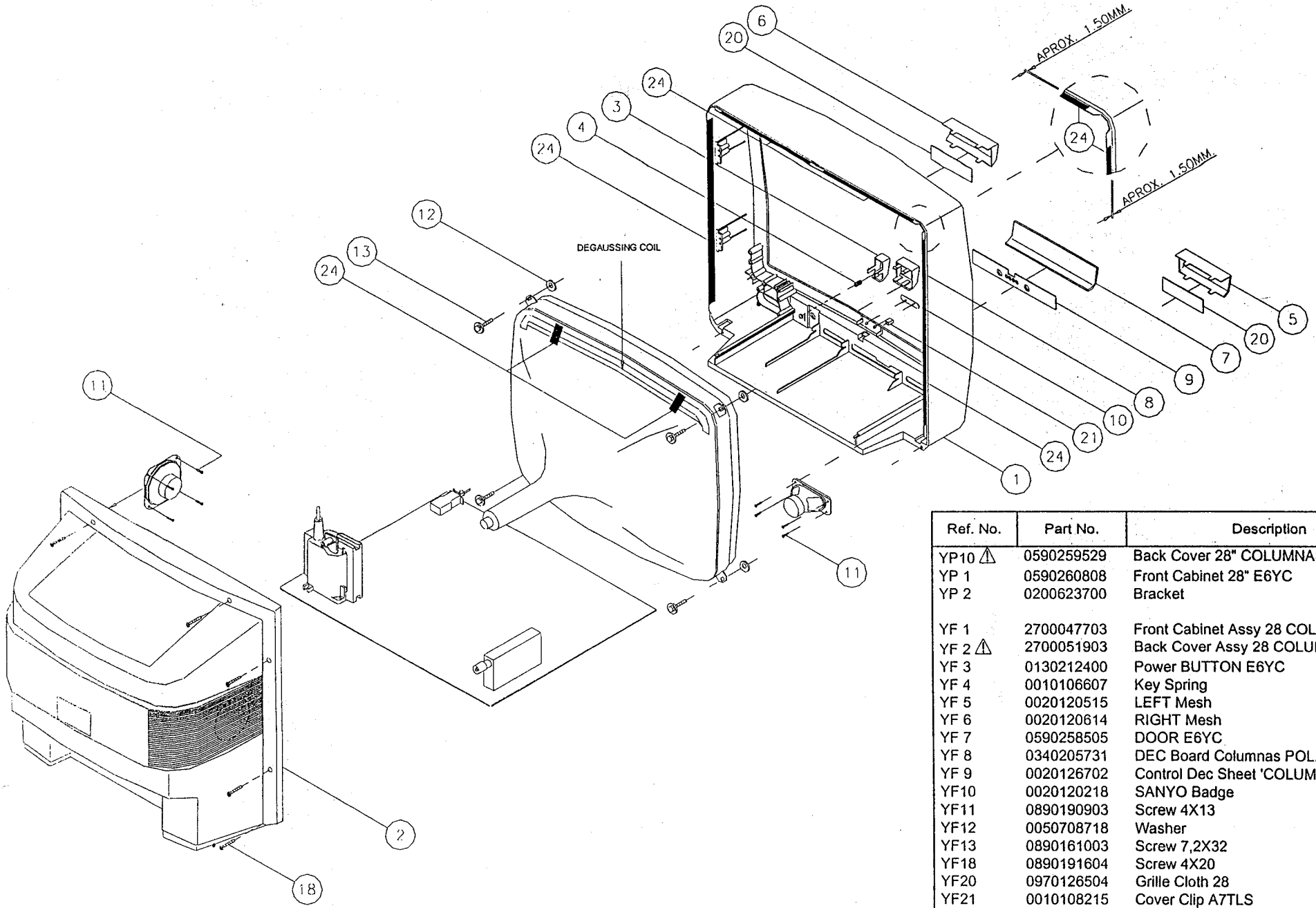
❹ Adjust to brightness. Position 34 (Push key "+" 34 times starting at minimum position.)

11.- C2581TX-P CABINET PARTS LIST



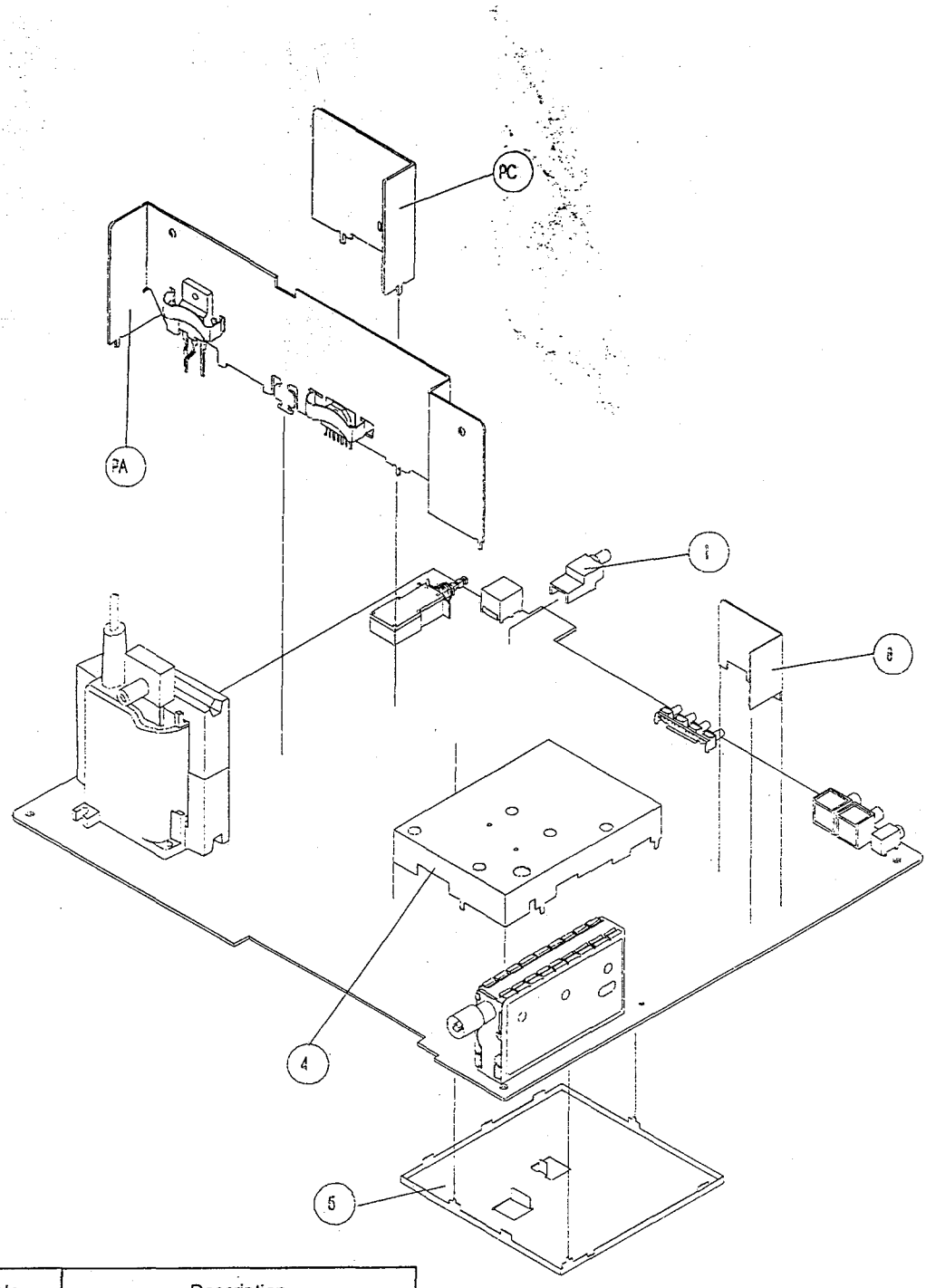
Ref. No.	Part No.	Description
YP10 ⚠	0590253449	Back Cover 25" COLUMNAS EC-4B
YP 1	0590257606	Front Cabinet 25" E6YC
YP 2	0200623700	Bracket
YF 1	2700047604	Front Cabinet Assy 25" COL./POL
YF 2 ⚠	2700051804	Back Cover Assy 25" COLUM. P/POL
YF 3	0130212400	Power BUTTON E6YC
YF 4	0010106607	Key Spring
YF 5	0020120317	LEFT Mesh
YF 6	0020120416	RIGHT Mesh
YF 7	0590258505	DOOR E6YC
YF 8	0340205731	DEC Board Columnas POL.
YF 9	0020126702	Control Dec Sheet 'COLUMNAS' EC-4B
YF10	0020120218	SANYO Badge
YF11	0890190903	Screw 4X13
YF12	0050708718	Washer
YF13	0890161003	Screw 7,2X32
YF18	0890191604	Screw 4X20
YF20	0970126405	Grille Cloth 25"
YF21	0010108215	Cover Clip A7TLS
YF24	0970141305	Adhesive Tape 19 mm Black

12.- C2881TX-P CABINET PARTS LIST



Ref. No.	Part No.	Description
YP10 ⚠	0590259529	Back Cover 28" COLUMNAS EC-4B
YP 1	0590260808	Front Cabinet 28" E6YC
YP 2	0200623700	Bracket
YF 1	2700047703	Front Cabinet Assy 28 COL./POL
YF 2 ⚠	2700051903	Back Cover Assy 28 COLUM. P/POL
YF 3	0130212400	Power BUTTON E6YC
YF 4	0010106607	Key Spring
YF 5	0020120515	LEFT Mesh
YF 6	0020120614	RIGHT Mesh
YF 7	0590258505	DOOR E6YC
YF 8	0340205731	DEC Board Columnas POL.
YF 9	0020126702	Control Dec Sheet 'COLUMNAS' EC-4B
YF10	0020120218	SANYO Badge
YF11	0890190903	Screw 4X13
YF12	0050708718	Washer
YF13	0890161003	Screw 7,2X32
YF18	0890191604	Screw 4X20
YF20	0970126504	Grille Cloth 28
YF21	0010108215	Cover Clip A7TLS
YF24	0970141305	Adhesive Tape 19 mm Black

13.- CHASSIS ELECTRICAL PARTS LIST



Ref. No.	Part No.	Description
YG 1	0200826402	LED Holder
YG 4 *	0080112311	Component Side Shield IF
YG 5 *	0080112410	Copper Side Shield IF
YG 8	0200222529	Heat sink EC-1 L-30X25
Assy PA		
Q650	0360305205	2SD 1556
IC701	0360708200	LA 7833
YR10	0200224228	Heat sink IZ 35X212
YR10A	0640705117	Eyelet 2,5-3
YR11	0010106300	Spring CLIP 56379
YR12	0970200804	Silicon Grease YG6260
Assy PE		
Q800	0360310809	MOS 2SK2750 600V/3,5A
YR50	0200224129	Heat sink L 54,6X16
YR50A	0640705117	Eyelet 2,5-3
YR51	0010110401	Spring CLIP 56363
YR56	0970200804	Silicon Grease YG6260

Ref. No.	Part No.	Description
PCB SOCKET TRC		
CAPACITORS		
C501	0240380212	Ceramic 39 pF. 2% 100V.
C511	0240120519	Ceramic 56 pF. 2% 100V.
C521	0240119917	Ceramic 47 pF. 2% 100V.
C530	0240143214	Ceramic 10 nF. +80-20% 63V.
C531	0250572427	Electrolytic 1000 µF. 16V.
C532	0250461290	Electrolytic 100 µF. 16V
C533 *	0240590901	Ceramic 2200pF +80-20% 2KV.
C541	0270341324	Polyester 100 nF. 10% 250V.
CON FD	0330144205	Ribbon Wire Holder 4 P.
CON FH	0330144304	Ribbon Wire Holder 5 P.
CON.FD	0160220711	Polarized Band Gray 4P 520+6+6
CON.FH	0160231205	Polarized Band Gray 5P 550+6+6
CON.FK	0640202610	Earth Wire 270 mm.
DIODES		
D501	0360020218	1N 4148
D511	0360020218	1N 4148
D521	0360020218	1N 4148
D530	0360130629	1N 4007 RL
J-502	0790123400	Carbon 47 Ω 5% 1/6W.
J-503	0470040007	Jumper Lead 0,6 mm.
J-512	0790123400	Carbon 47 Ω 5% 1/6W.
J-522	0790123400	Carbon 47 Ω 5% 1/6W.
L501	0090315763	Peaking Coil 100 µH 10%
PCB04 ⚠	0750145039	EC-4B Socket PCB
TRANSISTORS		
Q501	0360161301	BF 422
Q502	0360161301	BF 422
Q511	0360161301	BF 422
Q512	0360161301	BF 422
Q521	0360161301	BF 422
Q522	0360161301	BF 422
Q530	0360330021	JC 548 B
RESISTORS		
R501 ⚠	0790561005	Fuse 1 KΩ 5% 0,5W.
R502	0470040007	Jumper Lead 0,6 mm.
R503	0790580112	Power Metal Film 22 KΩ 5% 2W.
R504	0790586309	Metal Film 68 KΩ 1% 0,6W
R505	0790557029	Metal Film 560 Ω 1% 0,4W
R506	0790143606	Carbon 2,2 KΩ 5% 1/6W.
R507	0790130504	Carbon 180 Ω 5% 1/6W
R508	0790741409	Solid 1,5 KΩ 5% 1/2W.
R509	0090305566	Peaking Coil 33 µH 10%
R511 ⚠	0790561005	Fuse 1 KΩ 5% 0,5W.
R512	0470040007	Jumper Lead 0,6 mm.
R513	0790580112	Power Metal Film 22 KΩ 5% 2W.
R514	0790586309	Metal Film 68 KΩ 1% 0,6W
R515	0790557029	Metal Film 560 Ω 1% 0,4W
R516	0790742704	Carbon 2 KΩ 5% 1/6W.
R518	0790741409	Solid 1,5 KΩ 5% 1/2W.
R519	0090305566	Peaking Coil 33 µH 10%
R521 ⚠	0790561005	Fuse 1 KΩ 5% 0,5W.
R522	0470040007	Jumper Lead 0,6 mm.
R523	0790580112	Power Metal Film 22 KΩ 5% 2W.
R524	0790586309	Metal Film 68 KΩ 1% 0,6W
R525	0790557029	Metal Film 560 Ω 1% 0,4W
R526	0790742704	Carbon 2 KΩ 5% 1/6W.
R528	0790741409	Solid 1,5 KΩ 5% 1/2W.
R529	0090305566	Peaking Coil 33 µH 10%
R530	0790558001	Metal Film 820 Ω 1% 0,4W
R531	0790330708	Metal Film 110 Ω 1% 0,4W
R532	0090817008	Choke Coil 12 µH. 1,2 A
R534	0790175103	Carbon 1 MΩ 5% 1/2W.

Ref. No.	Part No.	Description
R535	0790592315	Metal Film 220 KΩ 2% 0,5W.
R536	0790741409	Solid 1,5 KΩ 5% 1/2W.
R537	0790741409	Solid 1,5 KΩ 5% 1/2W.
R538	0790551113	Power Metal Film 180 Ω 5% 1W.
R539	0790718704	Carbon 18 Ω 5% 1/6W.
R540	0790741409	Solid 1,5 KΩ 5% 1/2W.
VARIABLE RESISTOR		
VR502	0770511111	VR 220 Ω
VR511	0770511319	VR 2,2 KΩ
VR512	0770511111	VR 220 Ω
VR521	0770511319	VR 2,2 KΩ
VR522	0770511111	VR 220 Ω
SOCKET ⚠	0330158908	CRT Socket
PCB MAIN		
CAPACITORS		
C100	0250320793	Electrolytic 10 µF. 16V.
C101	0240143214	Ceramic 10 nF. +80-20% 63V.
C102	0240143214	Ceramic 10 nF. +80-20% 63V.
C103	0250119062	Electrolytic 6,8 µF. 50V.
C105	0240111716	Ceramic 10 pF. 2% 100V.
C106	0240119917	Ceramic 47 pF. 2% 100V.
C107	0270281124	Polyester 33 nF. 10% 100V.
C108	0270281124	Polyester 33 nF. 10% 100V.
C109	0270220726	Polyester 10 nF. 10% 250V.
C110	0240119917	Ceramic 47 pF. 2% 100V.
C111 *	0240551242	Ceramic 1000 pF. +80-20% 50V.
C112	0270400989	Polyester 330 nF. 10% 63V.
C114	0240123711	Ceramic 100 pF. 2% 100V.
C115	0270341456	Polyester 100 nF. 10% 63V.
C116	0270341456	Polyester 100 nF. 10% 63V.
C117	0250220456	Electrolytic 1 µF. 100V.
C118	0270341456	Polyester 100 nF. 10% 63V.
C119	0250320793	Electrolytic 10 µF. 16V.
C120	0250220456	Electrolytic 1 µF. 100V.
C121	0250220456	Electrolytic 1 µF. 100V.
C126	0270381080	Polyester 220 nF. 10% 63V.
C138	0270341456	Polyester 100 nF. 10% 63V.
C170	0250280864	Electrolytic 4,7 µF. 25V.
C175	0250410891	Electrolytic 47 µF. 16V.
C181	0240115618	Ceramic 22 pF. 2% 100V.
C182	0240117218	Ceramic 33 pF. 2% 100V.
C183	0240110510	Ceramic 8,2 pF. ±0,25 pF. 100V
C191	0270381080	Polyester 220 nF. 10% 63V.
C193	0270341456	Polyester 100 nF. 10% 63V.
C200 *	0240111716	Ceramic 10 pF. 2% 100V.
C201	0250220498	Electrolytic 1 µF. 100V.
C202	0250320793	Electrolytic 10 µF. 16V.
C203 *	0240551242	Ceramic 1000 pF. +80-20% 50V.
C204	0250320793	Electrolytic 10 µF. 16V.
C206	0270341456	Polyester 100 nF. 10% 63V.
C207	0250320793	Electrolytic 10 µF. 16V.
C230	0240121715	Ceramic 68 pF. 2% 100V.
C231	0240121715	Ceramic 68 pF. 2% 100V.
C232	0240143214	Ceramic 10 nF. +80-20% 63V.
C233	0240143214	Ceramic 10 nF. +80-20% 63V.
C234	0240143214	Ceramic 10 nF. +80-20% 63V.
C250	0250461290	Electrolytic 100 µF. 16V
C256	0250360492	Electrolytic 22 µF. 16V.
C300	0270341456	Polyester 100 nF. 10% 63V.
C301	0250601564	Electrolytic 2200 µF. 25V.
C302	0270341456	Polyester 100 nF. 10% 63V.
C303	0250240496	Electrolytic 2,2 µF. 63V.
C305	0250410891	Electrolytic 47 µF. 16V.
C306	0250322260	Electrolytic 10 µF. 50V.
C307	0270420680	Polyester 470 nF. 10% 63V.
C308	0250570660	Electrolytic 1000 µF. 16V.
C310 *	0240144410	Ceramic 22 nF. +80-20% 63V.
C311	0250410891	Electrolytic 47 µF. 16V.
C312	0240551242	Ceramic 1000 pF. +80-20% 50V.
C313	0240551242	Ceramic 1000 pF. +80-20% 50V.

Ref. No.	Part No.	Description
C314	0240430306	Ceramic 100 pF. 2% 100V.
C315 *	0240551242	Ceramic 1000 pF. +80-20% 50V.
C317	0240630509	Ceramic Capacitor 4700 pF. 10% 50V.
C318	0240551242	Ceramic 1000 pF. +80-20% 50V.
C319	0240131417	Ceramic 470 pF. 10% 100V.
C320	0250320793	Electrolytic 10 µF. 16V.
C321	0250280864	Electrolytic 4,7 µF. 25V.
C400	0240144410	Ceramic 22 nF. +80-20% 63V.
C401	0250500667	Electrolytic 220 µF. 16V.
C402	0270341456	Polyester 100 nF. 10% 63V.
C403	0270341456	Polyester 100 nF. 10% 63V.
C404	0250240454	Electrolytic 2,2 µF. 63V.
C405	0240114611	Ceramic 18 pF. 2% 100V.
C407	0270180623	Polyester 4700 pF. 10% 250V.
C408	0270341456	Polyester 100 nF. 10% 63V.
C409	0240551242	Ceramic 1000 pF. +80-20% 50V.
C410	0240551242	Ceramic 1000 pF. +80-20% 50V.
C411	0240143214	Ceramic 10 nF. +80-20% 63V.
C412	0240141614	Ceramic 3900 pF.10% 100V.
C413	0270341456	Polyester 100 nF. 10% 63V.
C414	0270341456	Polyester 100 nF. 10% 63V.
C415	0270341456	Polyester 100 nF. 10% 63V.
C416	0240551242	Ceramic 1000 pF. +80-20% 50V.
C417	0240143214	Ceramic 10 nF. +80-20% 63V.
C418	0240143214	Ceramic 10 nF. +80-20% 63V.
C419	0240143214	Ceramic 10 nF. +80-20% 63V.
C420	0270341456	Polyester 100 nF. 10% 63V.
C422	0250360492	Electrolytic 22 µF. 16V.
C424 *	0240123711	Ceramic 100 pF. 2% 100V.
C430	0250320793	Electrolytic 10 µF. 16V.
C431	0250320793	Electrolytic 10 µF. 16V.
C432	0240143214	Ceramic 10 nF. +80-20% 63V.
C601	0270180623	Polyester 4700 pF. 10% 250V.
C602	0250222841	Electrolytic 1µF. 50V.
C603	0270140122	Polyester 2200 pF. 10% 400V.
C604	0270381080	Polyester 220 nF. 10% 63V.
C605	0250412962	Electrolytic 47 µF. 50V.
C607	0270370588	Polyester 180 nF. 10% 63V.
C608	0250220498	Electrolytic 1 µF. 100V.
C609	0240144410	Ceramic 22 nF. +80-20% 63V.
C650	0260228101	Polypropylene 39 nF. 5% 400V
C651 *	0260011374	Polypropylene 12 nF. 5% 1,6KV
C651A	0640850210	Eyelet 1,6-3
C652	0260420278	Polypropylene 470 nF. 5% 400V.
C652A	0640850210	Eyelet 1,6-3
C654	0250132776	Electrolytic. 100 µF. 200V.
C656	0270220726	Polyester 10 nF. 10% 250V.
C657	0270341456	Polyester 100 nF. 10% 63V.
C658	0240470807	Ceramic 220 pF. 5% 500V. SL
C661	0260433073	Polypropylene 820 nF. 5% 250V.
C661A	0640850210	Eyelet 1,6-3
C662	0250210895	Electrolytic 0,47 µF. 50V.
C663	0240143214	Ceramic 10 nF. +80-20% 63V.
C664	0240133355	Ceramic 680 pF. 10% 1KV.
C665	0250129426	Electrolytic 47 µF. 250V.
C667	0270220726	Polyester 10 nF. 10% 250V.
C668	0250320793	Electrolytic 10 µF. 16V.
C671	0250248267	Electrolytic 2,2 µF. 160V.
C701	0250412962	Electrolytic 47 µF. 50V.
C702	0250501368	Electrolytic 220 µF. 35V.
C704	0270120280	Polyester 1500 pF. 10% 400V.
C705	0270250582	Polyester 18 nF. 10% 250V.
C706	0250150265	Electrolytic 3300 µF. 16V.
C707	0250240496	Electrolytic 2,2 µF. 63V.
C710	0270381080	Polyester 220 nF. 10% 63V.
C711 *	0240119917	Ceramic 47 pF. 2% 100V.
C713	0270342603	Policarb. 100 nF. 5% 63V.
C714	0270180623	Polyester 4700 pF. 10% 250V.
C751	0250461464	Electrolytic 100 µF. 35V.
C753	0270220726	Polyester 10 nF. 10% 250V.
C754	0270220726	Polyester 10 nF. 10% 250V.
C755	0270160229	Polyester 3300 pF. 10% 400V.
C756	0270220726	Polyester 10 nF. 10% 250V.
C758	0240551242	Ceramic 1000 pF. +80-20% 50V.
C800 *	0270342702	Polyester 100 nF. 20% 275V.AC

Ref. No.	Part No.	Description
C803 *	0270401508	Polyester 330 nF. 20% 275V.AC
C805 *	0240134767	Ceramic 1000 pF. ±20% 1KV.
C806 *	0240134767	Ceramic 1000 pF. ±20% 1KV.
C807 *	0240134767	Ceramic 1000 pF. ±20% 1KV.
C808 *	0240134767	Ceramic 1000 pF. ±20% 1KV.
C809 *	0240590133	Ceramic 2200 pF 20% 4KV
C810	0250503612	Electrolytic 220 µF 385V.
C810A	0640705117	Eyelet 2,5-3
C811	0250220498	Electrolytic 1 µF. 100V.
C812	0270180623	Polyester 4700 pF. 10% 250V.
C813 *	0240480608	Ceramic 270 pF. 5% 1KV. PULSE
C814	0270321177	Polyester 68 nF. 10% 630V.
C815	0250322260	Electrolytic 10 µF. 50V.
C816	0240121715	Ceramic 68 pF. 2% 100V.
C817	0270400989	Polyester 330 nF. 10% 63V.
C818	0270160229	Polyester 3300 pF. 10% 400V.
C819	0270381080	Polyester 220 nF. 10% 63V.
C820	0270281231	Polyester 33 nF. 10% 400V.
C821 *	0240480608	Ceramic 270 pF. 5% 1KV. PULSE
C850 *	0240480608	Ceramic 270 pF. 5% 1KV. PULSE
C851	0250132776	Electrolytic. 100 µF. 200V.
C854	0250570462	Electrolytic 1000 µF. 25V.
C855	0250322260	Electrolytic 10 µF. 50V.
C856	0250530664	Electrolytic 470 µF. 35V.
C858	0250461290	Electrolytic 100 µF. 16V
C859	0250461290	Electrolytic 100 µF. 16V
C864	0250601093	Electrolytic 2200 µF. 35V.
C870	0270100522	Polyester 1000 pF. 10% 400V.
C872	0250412962	Electrolytic 47 µF. 50V.
C900	0250320793	Electrolytic 10 µF. 16V.
C901 *	0240123711	Ceramic 100 pF. 2% 100V.
C902	0250320793	Electrolytic 10 µF. 16V.
C903	0240143214	Ceramic 10 nF. +80-20% 63V.
C904	0250320793	Electrolytic 10 µF. 16V.
C906	0250320793	Electrolytic 10 µF. 16V.
C912 *	0240131417	Ceramic 470 pF. 10% 100V.
C914 *	0240131417	Ceramic 470 pF. 10% 100V.
C915 *	0240131417	Ceramic 470 pF. 10% 100V.
C917 *	0240131417	Ceramic 470 pF. 10% 100V.
C918	0250320793	Electrolytic 10 µF. 16V.
C919	0250320793	Electrolytic 10 µF. 16V.
CF200	0090412701	Ceramic TRAP Filter 5,5/6,5 MHz
CF201	0090412800	Ceramic Filter 6,5 MHz.
CF202	0090412503	Ceramic Filter 5.5 MHz.
CONNECTORS		
CN FB2	0330191701	2P. Socket
CN FC	0330115106	2P. Socket
CN FCA	0640850210	Eyelet 1,6-3
CN FD	0330144205	Ribbon Wire Holder 4 P.
CN FE	0330115106	2P. Socket
CN FEA	0640850210	Eyelet 1,6-3
CN FF1	0330190000	2P. Connector
CN FF2	0330270109	2 P. Socket
CN FG1	0330144205	Ribbon Wire Holder 4 P.
CN FG2	0330144205	Ribbon Wire Holder 4 P.
CN FH	0330144304	Ribbon Wire Holder 5 P.
CN.FB1	0330235839	Connector 2P W/Wire
CN.FG	0160220901	Polarized Band, Gray 4P. 330+6+6
DIODES		
D100	0360126205	Red/Green 3 mm.
D101	0360020218	1N 4148
D102	0360020218	1N 4148
D103	0360020218	1N 4148
D119	0360020218	1N 4148
D120	0360020218	1N 4148
D200	0360020218	1N 4148
D201	0360020218	1N 4148
D251	0360135107	Zener BZX79C8V2
D252	0360135107	Zener BZX79C8V2
D253	0360135107	Zener BZX79C8V2
D301	0360020218	1N 4148
D302	0360020218	1N 4148

Ref. No.	Part No.	Description
D303	0360020218	1N 4148
D304 ✱	0360130629	1N 4007 RL
D400	0360103204	Zener BZX79C5V1
D600	0360020218	1N 4148
D650	0360011316	BY 228/40
D652	0360376404	ERB44-06
D654	0360376404	ERB44-06
D655	0360130629	1N 4007 RL
D656	0360020218	1N 4148
D657	0360130629	1N 4007 RL
D659	0360020218	1N 4148
D660	0360135107	Zener BZX79C8V2
D661	0360005805	Zener BZX79C4V7
D662	0360020218	1N 4148
D663	0360376404	ERB44-06
D670	0360020218	1N 4148
D701	0360130629	1N 4007 RL
D702	0360020218	1N 4148
D703	0360020218	1N 4148
D704	0360135107	Zener BZX79C8V2
D751	0360020218	1N 4148
D752	0360005805	Zener BZX79C4V7
D754	0360105001	Zener BZX79C10
D755	0360130629	1N 4007 RL
D756	0360104509	Zener BZX79C20
D757	0360020218	1N 4148
D758	0360004709	Zener BZX79C12
D800	0360372312	RM 11C V1
D801	0360372312	RM 11C V1
D802	0360372312	RM 11C V1
D803	0360372312	RM 11C V1
D804	0360376800	EG01C
D805	0360020218	1N 4148
D806	0360020218	1N 4148
D809	0360020218	1N 4148
D850	0360374409	RU4B LF-T3
D851	0360376701	Schottky RK 19 V1
D852	0360376909	ERB44-02
D853	0360102602	Zener BZX79C3V3
D854	0360376909	ERB44-02
D855	0360103501	Zener BZX79C5V6
D856	0360104004	Zener BZX79B6V2
D857	0360020218	1N 4148
D858	0360107106	Zener BZX79C15
D859	0360103501	Zener BZX79C5V6
D860	0360020218	1N 4148
D861	0360020218	1N 4148
D862	0360102602	Zener BZX79C3V3
D900 ✱	0360004709	Zener BZX79C12
D904 ✱	0360004709	Zener BZX79C12
D906 ✱	0360004709	Zener BZX79C12
D909 ✱	0360004709	Zener BZX79C12
D911 ✱	0360004709	Zener BZX79C12
FUSE		
F-800	0760100701	Fuse Terminal Taped
F800⚠	0330161803	Fuse T 1,6 A./250V. TIME-LAG
INTEGRATED CIRCUIT		
IC100	0360471916	SDA 5251-A004
IC125	0360467401	XL24C02P
IC190	0360706014	HZT33-02 RE
IC300	0360491005	TDA 1905
IC400 ✱	0360513444	TDA 8361 N5
IC401	0360142202	U 3661 M
IC701	0360708200	LA 7833
IC751	0360528103	TDA 4950
IC800	0360512115	TDA 4605-15
IC801⚠	0360147300	Optoc. CNY 17F-1
IC851	0360367205	BA17808T
IC852	0360367106	BA17805T
IC900	0360706600	LA 7016
IP125	0800105405	EC-4B 25"/28" NVM DATA

Ref. No.	Part No.	Description
J-048	0090304627	Peaking Coil 1 µH. 10%
J-059	0790126700	Carbon 100 Ω 5% 1/6W.
J-075	0790126700	Carbon 100 Ω 5% 1/6W.
J-076	0790036800	Carbon 1,5 KΩ 5% 1/4W.
J-084	0790126700	Carbon 100 Ω 5% 1/6W.
J-092	0620005116	Pipe Core 3,5X4,5
COILS		
L100	0090319229	Peaking Coil 4,7 µH. 10%
L102	0470040007	Jumper Lead 0,6 mm.
L105	0090319864	Peaking Coil 6,8 µH 5%
L200	0090315029	Peaking Coil 10 µH. 10%
L201	0090502303	Coil 38,9 MH.C/COND.100pF
L202	0090315029	Peaking Coil 10 µH. 10%
L250 ✱	0090315763	Peaking Coil 100 µH 10%
L251 ✱	0090304627	Peaking Coil 1 µH. 10%
L300 ✱	0090817008	Choke Coil 12 µH. 1,2 A
L301 ✱	0090319765	Peaking Coil 22 µH. 10%
L302	0470040007	Jumper Lead 0,6 mm.
L303 ✱	0620005116	Pipe Core 3,5X4,5
L308 ✱	0620005116	Pipe Core 3,5X4,5
L309	0090305368	Peaking Coil 10µH. 10%
L400 ✱	0090305665	Peaking Coil 4,7 µH 10%
L402 ✱	0620005504	Pipe Core 4330 030 38741 EMB.
L403 ✱	0090319229	Peaking Coil 4,7 µH. 10%
L404 ✱	0090319229	Peaking Coil 4,7 µH. 10%
L405 ✱	0090319229	Peaking Coil 4,7 µH. 10%
L406 ✱	0090319229	Peaking Coil 4,7 µH. 10%
L601	0090319229	Peaking Coil 4,7 µH. 10%
L652	0090755828	Linearity Coil BDL-1415-042
L652A	0640850210	Eyelet 1,6-3
L653	0090304338	Choke 50 µH.
L654	0090502808	Dynamic Correction Coil 1,1 MH
L654A	0640850210	Eyelet 1,6-3
L656	0090817008	Choke Coil 12 µH. 1,2 A
L700	0470040007	Jumper Lead 0,6 mm.
L750	0090502600	E/W Coil 5,5 MH. 10%
L800⚠	0090412206	Mains Filter 2X27 MH 250VAC 1A
L800A	0640850210	Eyelet 1,6-3
L810 ✱	0620005116	Pipe Core 3,5X4,5
L850 ✱	0620005116	Pipe Core 3,5X4,5
L851	0470040007	Jumper Lead 0,6 mm.
L852 ✱	0620005116	Pipe Core 3,5X4,5
L853	0090315748	Peaking Coil 100 µH. 10%
L901 ✱	0790036305	Carbon 2,2 KΩ 5% 1/4W.
L902 ✱	0790036305	Carbon 2,2 KΩ 5% 1/4W.
L903 ✱	0790036305	Carbon 2,2 KΩ 5% 1/4W.
L904 ✱	0090315029	Peaking Coil 10 µH. 10%
NT800A	0640850210	Eyelet 1,6-3
NTC800	0810101816	N.T.C. 4,7 Ω 20%
PCB11⚠	0750149825	EC-4B MAIN PCB
PTC800⚠	0810101212	DUAL PTC 18 Ω ±25%
TRANSISTORS		
Q100	0360330021	JC 548 B
Q101	0360330021	JC 548 B
Q103	0360330021	JC 548 B
Q104	0360330021	JC 548 B
Q105	0360189112	PH2369
Q106	0360330021	JC 548 B
Q107	0360330021	JC 548 B
Q111	0360330021	JC 548 B
Q120	0360330021	JC 548 B
Q121	0360330021	JC 548 B
Q200	0360330021	JC 548 B
Q201	0360331029	JC 558 B
Q251	0360331029	JC 558 B
Q252	0360331029	JC 558 B
Q253	0360331029	JC 558 B
Q300	0360330021	JC 548 B
Q301	0360330021	JC 548 B
Q302	0360331029	JC 558 B

Ref. No.	Part No.	Description
Q400	0360331029	JC 558 B
Q401	0360330021	JC 548 B
Q430	0360330021	JC 548 B
Q431	0360331029	JC 558 B
Q600	0360169916	BC 879 Darlington
Q601	0360330021	JC 548 B
Q650	0360305205	2SD 1556
Q650A	0640850210	Eyelet 1,6-3
Q652	0360330021	JC 548 B
Q654	0360331029	JC 558 B
Q703	0360331029	JC 558 B
Q800	0360310809	MOS 2SK2750 600V/3,5A
Q851	0360173504	TIP 32 C
Q852	0360330021	JC 548 B
Q853	0360331029	JC 558 B
Q854	0360331029	JC 558 B
Q856	0360330021	JC 548 B
Q857	0360331029	JC 558 B
Q858	0360330021	JC 548 B
Q859	0360330021	JC 548 B
Q860	0360330021	JC 548 B
Q900	0360330021	JC 548 B
Q901	0360330021	JC 548 B
RESISTENCIAS		
R100	0790133607	Carbon 330 Ω 5% 1/6W.
R101	0790352520	Metal Film 4,02 KΩ 1% 0,4W.
R104	0790359525	Metal Film 11,3 KΩ 1% 0,4W.
R105	0790146401	Carbon 3,9 KΩ 5% 1/6W.
R106	0790143606	Carbon 2,2 KΩ 5% 1/6W.
R107	0790153605	Carbon 15 KΩ 5% 1/6W
R108	0790578306	Metal Film 15 KΩ 1% 0,4W.
R109	0790588529	Metal Film 100 KΩ 1% 0,4W.
R110	0790126700	Carbon 100 Ω 5% 1/6W.
R111	0790135701	Carbon 470 Ω 5% 1/6W.
R112	0790155600	Carbon 22 KΩ 5% 1/6W.
R113	0790126700	Carbon 100 Ω 5% 1/6W.
R114	0470040007	Jumper Lead 0,6 mm.
R115	0790151500	Carbon 10 KΩ 5% 1/6W.
R116	0790150601	Carbon 8,2 KΩ 5% 1/6W.
R117	0790149405	Carbon 6,8 KΩ 5% 1/6W.
R118	0790149405	Carbon 6,8 KΩ 5% 1/6W.
R119	0790143606	Carbon 2,2 KΩ 5% 1/6W.
R120	0790138804	Carbon 1 KΩ 5% 1/6W.
R121	0790138804	Carbon 1 KΩ 5% 1/6W.
R122	0470040007	Jumper Lead 0,6 mm.
R124	0790356521	Metal Film 6,49 KΩ 1% 0,4W
R125	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R126	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R128	0790162309	Carbon 82 KΩ 5% 1/6W.
R129	0790174007	Carbon 750 KΩ 5% 1/6W.
R130	0790143606	Carbon 2,2 KΩ 5% 1/6W.
R131	0790153605	Carbon 15 KΩ 5% 1/6W
R132	0790164909	Carbon 130 KΩ 5% 1/6W.
R133	0790155600	Carbon 22 KΩ 5% 1/6W.
R134	0790137707	Carbon 680 Ω 5% 1/6W
R135	0790160501	Carbon 56 KΩ 5% 1/6W.
R136	0790755003	Carbon 20 KΩ 5% 1/6W.
R137	0790758007	Carbon 36 KΩ 5% 1/6W.
R139	0790769103	Carbon 330 KΩ 5% 1/6W.
R140	0790180509	Carbon 2,2 MΩ 5% 1/4W.
R141	0790178107	Carbon 1,5 MΩ 5% 1/4W.
R142	0790155600	Carbon 22 KΩ 5% 1/6W.
R143	0790159503	Carbon 47 KΩ 5% 1/6W
R144	0790157408	Carbon 33 KΩ 5% 1/6W.
R145	0790126700	Carbon 100 Ω 5% 1/6W.
R146	0790364129	Metal Film 22,1 KΩ 1% 0,4W.
R147	0790750004	Carbon 7,5 KΩ 5% 1/6W.
R148	0790143606	Carbon 2,2 KΩ 5% 1/6W.
R149	0790141600	Carbon 1,5 KΩ 5% 1/6W.
R150	0790143606	Carbon 2,2 KΩ 5% 1/6W.
R151	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R152	0790147607	Carbon 4,7 KΩ 5% 1/6W.

Ref. No.	Part No.	Description
R153	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R154	0790153605	Carbon 15 KΩ 5% 1/6W
R155	0790138804	Carbon 1 KΩ 5% 1/6W.
R156	0790142509	Carbon 1,8 KΩ 5% 1/6W.
R157	0790151500	Carbon 10 KΩ 5% 1/6W.
R158	0790155600	Carbon 22 KΩ 5% 1/6W.
R159	0790165302	Carbon 150 KΩ 5% 1/6W.
R160	0790160501	Carbon 56 KΩ 5% 1/6W.
R161	0790123400	Carbon 47 Ω 5% 1/6W.
R162	0790123400	Carbon 47 Ω 5% 1/6W.
R163	0790123400	Carbon 47 Ω 5% 1/6W.
R164	0470040007	Jumper Lead 0,6 mm.
R165	0790144505	Carbon 2,7 KΩ 5% 1/6W.
R166	0790151500	Carbon 10 KΩ 5% 1/6W.
R167	0790354229	Metal Film 5,11 KΩ 1% 0,4W.
R168	0790159503	Carbon 47 KΩ 5% 1/6W
R169	0790151500	Carbon 10 KΩ 5% 1/6W.
R170	0790151500	Carbon 10 KΩ 5% 1/6W.
R175	0790123608	Carbon 47 Ω 5% 1/2W.
R177	0790151500	Carbon 10 KΩ 5% 1/6W.
R178	0790126700	Carbon 100 Ω 5% 1/6W.
R179	0790138804	Carbon 1 KΩ 5% 1/6W.
R180	0790138804	Carbon 1 KΩ 5% 1/6W.
R181	0790133607	Carbon 330 Ω 5% 1/6W.
R182	0790159503	Carbon 47 KΩ 5% 1/6W
R183	0790137707	Carbon 680 Ω 5% 1/6W
R184	0790151500	Carbon 10 KΩ 5% 1/6W.
R185	0790138804	Carbon 1 KΩ 5% 1/6W.
R186	0470040007	Jumper Lead 0,6 mm.
R187	0790159503	Carbon 47 KΩ 5% 1/6W
R188	0790151500	Carbon 10 KΩ 5% 1/6W.
R189	0790168504	Carbon 270 KΩ 5% 1/6W.
R190	0790579437	Metal Film 18 KΩ 5% 2W.
R191	0790153605	Carbon 15 KΩ 5% 1/6W
R192	0790151500	Carbon 10 KΩ 5% 1/6W.
R200	0790149405	Carbon 6,8 KΩ 5% 1/6W.
R201	0790155600	Carbon 22 KΩ 5% 1/6W.
R202	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R203	0790149405	Carbon 6,8 KΩ 5% 1/6W.
R204	0790137707	Carbon 680 Ω 5% 1/6W
R205	0790138804	Carbon 1 KΩ 5% 1/6W.
R206	0790135701	Carbon 470 Ω 5% 1/6W.
R207	0790131908	Carbon 220 Ω 5% 1/6W.
R208	0790141600	Carbon 1,5 KΩ 5% 1/6W.
R209	0790135701	Carbon 470 Ω 5% 1/6W.
R210	0790135909	Carbon 560 Ω 5% 1/6W.
R212	0790135701	Carbon 470 Ω 5% 1/6W.
R217	0790132104	Carbon 270 Ω 5% 1/4W.
R218	0790135701	Carbon 470 Ω 5% 1/6W.
R230	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R231	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R232	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R235	0790137707	Carbon 680 Ω 5% 1/6W
R251	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R252	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R253	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R254	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R255	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R256	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R262	0790148605	Carbon 5,6 KΩ 5% 1/6W.
R300	0790155600	Carbon 22 KΩ 5% 1/6W.
R301	0790148605	Carbon 5,6 KΩ 5% 1/6W.
R302	0790133607	Carbon 330 Ω 5% 1/6W.
R303	0790111413	Carbon 4,7 Ω 5% 1/2W.
R305	0790332100	Power Metal Film 150 Ω 5% 1W.
R306	0790151500	Carbon 10 KΩ 5% 1/6W.
R307	0790151500	Carbon 10 KΩ 5% 1/6W.
R308	0790155600	Carbon 22 KΩ 5% 1/6W.
R310	0790159503	Carbon 47 KΩ 5% 1/6W
R311	0790159503	Carbon 47 KΩ 5% 1/6W
R312	0790145106	Carbon 3,3 KΩ 5% 1/6W
R313	0790138804	Carbon 1 KΩ 5% 1/6W.

Ref. No.	Part No.	Description
R314	0790131908	Carbon 220 Ω 5% 1/6W.
R315	0790155600	Carbon 22 KΩ 5% 1/6W.
R316	0790151500	Carbon 10 KΩ 5% 1/6W.
R319	0790154405	Carbon 18 KΩ 5% 1/6W.
R320	0790163000	Carbon 100 KΩ 5% 1/6W
R321	0790155600	Carbon 22 KΩ 5% 1/6W.
R322	0790131908	Carbon 220 Ω 5% 1/6W.
R400	0790163000	Carbon 100 KΩ 5% 1/6W
R401	0790151500	Carbon 10 KΩ 5% 1/6W.
R402	0790151500	Carbon 10 KΩ 5% 1/6W.
R403	0790138804	Carbon 1 KΩ 5% 1/6W.
R407	0790149405	Carbon 6,8 KΩ 5% 1/6W.
R408	0790153605	Carbon 15 KΩ 5% 1/6W
R409	0790131601	Carbon 220 Ω 5% 1/2W.
R410	0790150601	Carbon 8,2 KΩ 5% 1/6W.
R411	0470040007	Jumper Lead 0,6 mm.
R412	0470040007	Jumper Lead 0,6 mm.
R413	0790126700	Carbon 100 Ω 5% 1/6W.
R414	0790126700	Carbon 100 Ω 5% 1/6W.
R415	0790126700	Carbon 100 Ω 5% 1/6W.
R417	0470040007	Jumper Lead 0,6 mm.
R420	0470040007	Jumper Lead 0,6 mm.
R421	0470040007	Jumper Lead 0,6 mm.
R422	0470040007	Jumper Lead 0,6 mm.
R423	0470040007	Jumper Lead 0,6 mm.
R425	0470040007	Jumper Lead 0,6 mm.
R430	0790138804	Carbon 1 KΩ 5% 1/6W.
R431	0790142509	Carbon 1,8 KΩ 5% 1/6W.
R432	0790135909	Carbon 560 Ω 5% 1/6W.
R433	0790137202	Carbon 680 Ω 5% 1/4W.
R434	0470040007	Jumper Lead 0,6 mm.
R600	0790132104	Carbon 270 Ω 5% 1/4W.
R601	0790520423	Metal Film 0,68 Ω 5% 0,6W.
R602	0790552418	Metal Film 220 Ω 5% 2W.
R603	0790151500	Carbon 10 KΩ 5% 1/6W.
R604	0790174106	Carbon 820 KΩ 5% 1/4W.
R606	0790756308	Carbon 27 KΩ 5% 1/6W.
R607	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R608	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R609	0790127104	Carbon 100 Ω 5% 1/4W.
R611	0790539118	Metal Oxide 18 Ω 5% 2W.
R612	0790539605	Metal Film 22 Ω 5% 2W.
R613	0790766208	Carbon 180 KΩ 5% 1/6W.
R614	0790161608	Carbon 68 KΩ 5% 1/6W.
R615	0790755805	Carbon 24 KΩ 5% 1/6W.
R616	0790756308	Carbon 27 KΩ 5% 1/6W.
R617	0790153605	Carbon 15 KΩ 5% 1/6W
R618	0790184402	Carbon 4,7 MΩ 5% 1/4W.
R641	0790310114	Metal Film 3,9 Ω 5% 2W.
R652	0790541379	Metal Oxide 27 Ω 5% 2W.
R653	0790151500	Carbon 10 KΩ 5% 1/6W.
R655	0790155600	Carbon 22 KΩ 5% 1/6W.
R657 ⚠	0790560205	Fuse 1 KΩ 5% 0,5W.
R661	0790146401	Carbon 3,9 KΩ 5% 1/6W.
R662	0790149405	Carbon 6,8 KΩ 5% 1/6W.
R664	0790145106	Carbon 3,3 KΩ 5% 1/6W
R666	0790159503	Carbon 47 KΩ 5% 1/6W
R670	0790130702	Carbon 200 Ω 5% 1/6W
R671	0790142509	Carbon 1,8 KΩ 5% 1/6W.
R672	0790766208	Carbon 180 KΩ 5% 1/6W.
R674	0790159503	Carbon 47 KΩ 5% 1/6W
R675	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R676	0790151708	Carbon 12 KΩ 5% 1/6W.
R677	0790157408	Carbon 33 KΩ 5% 1/6W.
R678	0790579411	Power Metal Film 18 KΩ 5% 2W.
R679	0790579411	Power Metal Film 18 KΩ 5% 2W.
R701	0790147607	Carbon 4,7 KΩ 5% 1/6W.
R702	0790142509	Carbon 1,8 KΩ 5% 1/6W.
R703	0790155600	Carbon 22 KΩ 5% 1/6W.
R704	0790156905	Carbon 30 KΩ 5% 1/6W.
R705	0790149405	Carbon 6,8 KΩ 5% 1/6W.
R706	0790520423	Metal Film 0,68 Ω 5% 0,6W.

Ref. No.	Part No.	Description
R707	0790151500	Carbon 10 KΩ 5% 1/6W.
R708	0790151708	Carbon 12 KΩ 5% 1/6W.
R709	0790027601	Carbon 1,2 KΩ 5% 1/4W.
R710	0790333108	Power Metal Film 180 Ω 5% 2W.
R712	0790138101	Carbon 820 Ω 5% 1/4W.
R713	0790557805	Metal Film 680 Ω 1% 0,6W.
R714	0790146401	Carbon 3,9 KΩ 5% 1/6W.
R716	0790764708	Carbon 120 KΩ 5% 1/6W.
R717	0790184402	Carbon 4,7 MΩ 5% 1/4W.
R718	0790604615	Metal Film 3,3 MΩ 1% 0,6W.
R721	0790149405	Carbon 6,8 KΩ 5% 1/6W.
R722	0790155600	Carbon 22 KΩ 5% 1/6W.
R750	0790155600	Carbon 22 KΩ 5% 1/6W.
R751	0790153605	Carbon 15 KΩ 5% 1/6W
R752	0790036305	Carbon 2,2 KΩ 5% 1/4W.
R753	0790152102	Carbon 11 KΩ 5% 1/6W.
R754	0790518609	Metal Film 0,56 Ω 5% 0,61W.
R755	0790154405	Carbon 18 KΩ 5% 1/6W.
R756⚠	0790528814	Fuse 2,2 Ω 5% 0,33W.
R759	0790767008	Carbon 220 KΩ 5% 1/6W.
R762	0790769103	Carbon 330 KΩ 5% 1/6W.
R766	0790144505	Carbon 2,7 KΩ 5% 1/6W.
R767	0790172407	Carbon 560 KΩ 5% 1/6W.
R800	0790185524	Solid 5,6 MΩ 10% 1/2W.
R801	0790750004	Carbon 7,5 KΩ 5% 1/6W.
R802	0790117105	Carbon 15 Ω 5% 1/4W.
R803	0790580161	Metal Oxide 22 KΩ 5% 2W.
R804	0790146401	Carbon 3,9 KΩ 5% 1/6W.
R805	0790598403	High Voltage 750 KΩ 5% 0,25W.
R806	0790597314	Metal Film 470 KΩ 5% 2W.
R807	0790151500	Carbon 10 KΩ 5% 1/6W.
R808	0790151708	Carbon 12 KΩ 5% 1/6W.
R809	0790130504	Carbon 180 Ω 5% 1/6W
R810	0790141600	Carbon 1,5 KΩ 5% 1/6W.
R811	0790123103	Carbon 47 Ω 5% 1/4W.
R812	0790147102	Carbon 4,7 KΩ 5% 1/4W.
R813	0470040007	Jumper Lead 0,6 mm.
R814	0790161335	Metal Film 68 KΩ 5% 2W.
R815	0790161335	Metal Film 68 KΩ 5% 2W.
R816	0790184113	Carbon 4,7 MΩ 5% 1/2W.
R817	0790119101	Carbon 22 Ω 5% 1/4W.
R818	0790133102	Carbon 330 Ω 5% 1/4W.
R819	0790185524	Solid 5,6 MΩ 10% 1/2W.
R820	0790167217	Carbon 220 KΩ 5% 1/2W.
R850	0790541312	Metal Oxide 27 Ω 5% 2W.
R851	0790565923	Metal Film 2,43 KΩ 1% 0,4 W.
R852	0790351522	Metal Film 3,4 KΩ 1% 0,4W.
R853	0790135701	Carbon 470 Ω 5% 1/6W.
R854⚠	0790516611	Fuse 0,47 Ω 10% 0,7 W.
R856	0790138804	Carbon 1 KΩ 5% 1/6W.
R857	0790151500	Carbon 10 KΩ 5% 1/6W.
R858	0790554828	Power Metal Film 330 Ω 5% 1W.
R859	0790588438	Metal Film 102 KΩ 1% 0,6W.
R861	0470040007	Jumper Lead 0,6 mm.
R862	0790569636	Metal Film 4,64 KΩ 1% 0,6W.
R863	0790131908	Carbon 220 Ω 5% 1/6W.
R864	0790143606	Carbon 2,2 KΩ 5% 1/6W.
R865	0790141600	Carbon 1,5 KΩ 5% 1/6W.
R866	0790138804	Carbon 1 KΩ 5% 1/6W.
R867	0790138804	Carbon 1 KΩ 5% 1/6W.
R871	0790138804	Carbon 1 KΩ 5% 1/6W.
R872	0790552418	Metal Film 220 Ω 5% 2W.
R874	0790136402	Carbon 560 Ω 5% 1/2W.
R875	0790148605	Carbon 6,8 KΩ 5% 1/6W.
R876	0790027502	Carbon [illegible] 5% 1/4W.
R877	0790139307	Carbon [illegible] 5% 1/2W.
R878	0790151500	Carbon [illegible] 5% 1/6W.
R879	0790155600	Carbon [illegible] 5% 1/6W.
R909⚠	0790540900	Fuse 27 Ω 5% 0,33W.
R910	0790157408	Carbon 33 KΩ 5% 1/6W.
R912 *	0790133102	Carbon 330 Ω 5% 1/4W.

Ref. No.	Part No.	Description
R913	0790138804	Carbon 1 KΩ 5% 1/6W.
R914	0790151708	Carbon 12 KΩ 5% 1/6W.
R915 ✱	0790151500	Carbon 10 KΩ 5% 1/6W.
R917 ✱	0790151500	Carbon 10 KΩ 5% 1/6W.
R918 ✱	0790151500	Carbon 10 KΩ 5% 1/6W.
R919	0790125702	Carbon 75 Ω 5% 1/4W.
R920	0790125702	Carbon 75 Ω 5% 1/4W.
R921	0790125702	Carbon 75 Ω 5% 1/4W.
R922	0790125702	Carbon 75 Ω 5% 1/4W.
R923	0790026207	Carbon 560 Ω 5% 1/4W.
R924	0790026207	Carbon 560 Ω 5% 1/4W.
R925	0790026207	Carbon 560 Ω 5% 1/4W.
R926	0790137202	Carbon 680 Ω 5% 1/4W.
R927	0790125702	Carbon 75 Ω 5% 1/4W.
R928	0790125702	Carbon 75 Ω 5% 1/4W.
R936	0790158109	Carbon 39 KΩ 5% 1/4W.
R937	0790756308	Carbon 27 KΩ 5% 1/6W.
R950	0790131908	Carbon 220 Ω 5% 1/6W.
R951	0790131908	Carbon 220 Ω 5% 1/6W.
R953	0790126700	Carbon 100 Ω 5% 1/6W.
RI100	0600122204	Infrared Receiver SBX8030-F
S300	0330143009	Headphone Jack EK1052
S900	0330161407	Scart Connector 21 PIN BLACK
S901	0330133109	Video RCA Connector EK105Y
S902	0330133208	Audio RCA Connector EK105W
SF200 ✱	0090403510	SAW Filter OFW K2950M
SW100	0130209307	Multiple PUSH Switch (4)
SW800⚠	0140203209	Power Switch
TRANSFORMERS		
T600 ✱	0940105307	Driver Trans. HR18003
T650⚠	0940107808	Split Trans. EC-4B/EB-2B 1192.1017C
T650AE	0640850210	Eyelet 1,6-3
T650BE	0640705117	Eyelet 2,5-3
T800⚠	0930106208	Power Supply Trans. 103650.50
T800A	0640850210	Eyelet 1,6-3
TUNER		
TU250 ✱	0850101502	Tuner UV 915E/IEC
VARIABLE RESISTORS		
VR200	0770511202	VR 1 KΩ
VR600	0770511459	VR 10 KΩ
VR701	0770511350	VR 2,2 KΩ
VR702	0770511053	VR 100 Ω
VR751	0770511350	VR 2,2 KΩ
VR752	0770511558	VR 100 KΩ
VR800	0770511202	VR 1 KΩ
CRYSTAL/RESONATOR		
X180	0090121500	Quartz Crystal 18,000 MHz
X400	0090121104	Quartz Crystal 4,4336190 MHz.
CN.FB2	0330247214	2P Connector W/Wire 400+30 MM
CN.FE ⚠	0330208208	Power Cord Assy 17-212 L=2500 MM
CN.FF1	0330246901	2 WAY Connector CASE W/LEAD
CN.FF2	0330246802	2 WAY Connector CASE W/LEAD
EM10	0600122311	Remote Control EC-4 TXT SANYO
LD810⚠ **25**	0090257205	Degaussing Coil 25"
LD810⚠ **28**	0090257304	Degaussing Coil 28"
SC001	0170200406	Shield Mesh 2 mm.
SC1000	0330100009	Connector
SPK 1	0030115703	Speaker 4" 16 Ω 5W.
SPK 2	0030115620	Speaker 16 Ω 5W.

Ref. No.	Part No.	Description
CRT ⚠ **25**	1000106821	A59ECF50X05
CRT ⚠ **28**	1000106920	A66ECF50X05

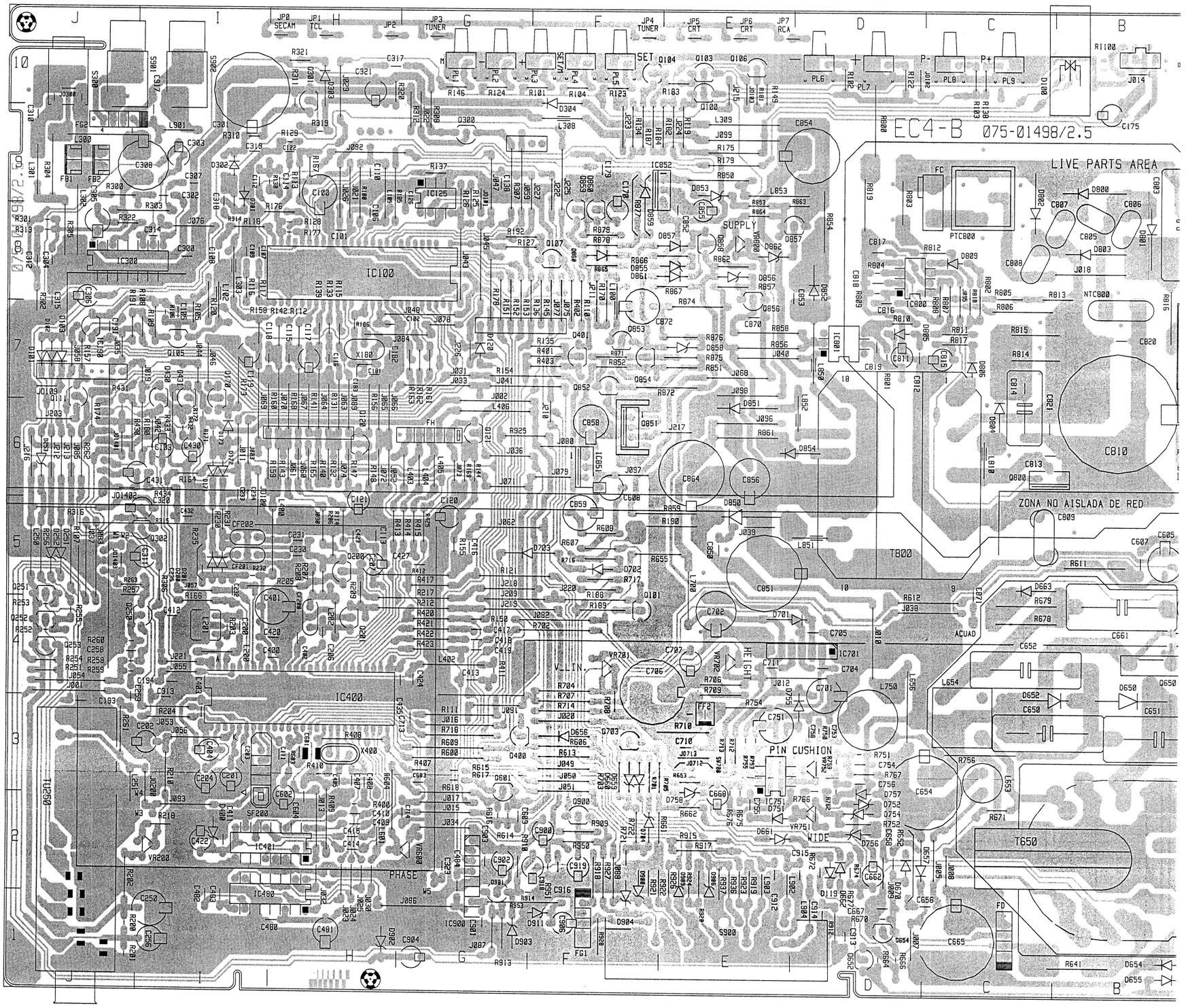
Note: **25** Exclusive component for C2581TX-P
28 Exclusive component for C2881TX-P

All information in this manual is correct at the start of production. Sanyo reserves its right to modify components and procedures in order to comply with their continuous improvement policy.

SANYO

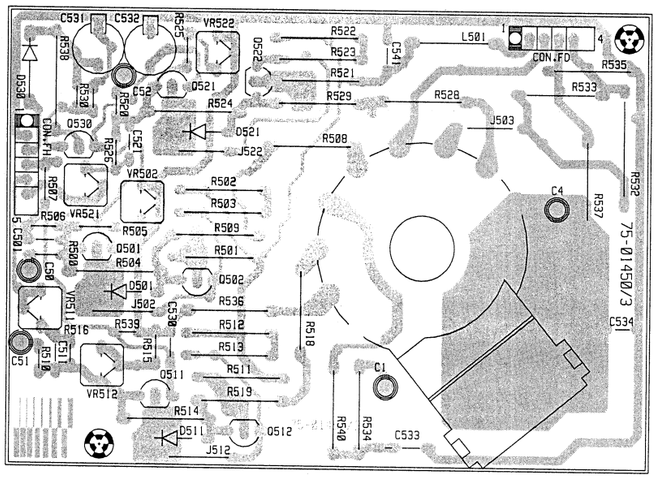
MAIN CIRCUIT P.C.B. SOLDER SIDE

P.C.B. CIRCUITO GENERAL CARA SOLDADURAS



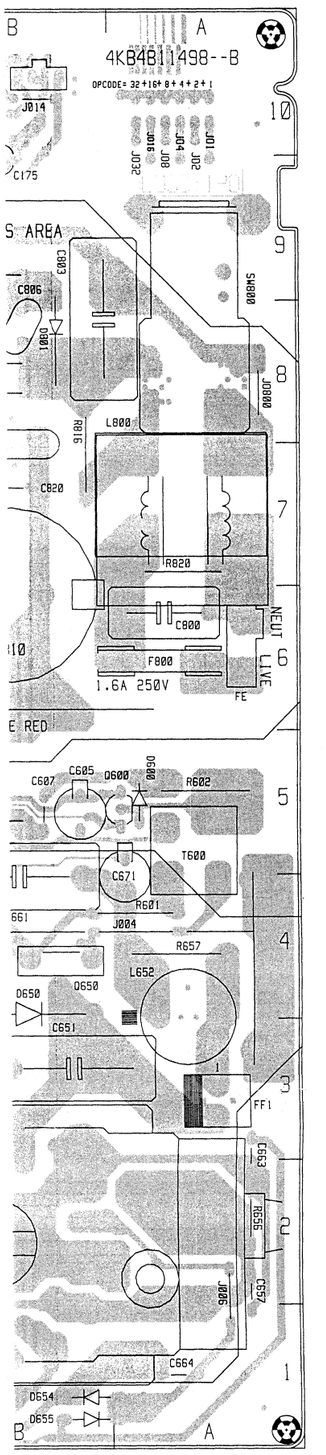
SOCKET CIRCUIT P.C.B. SOLDER SIDE

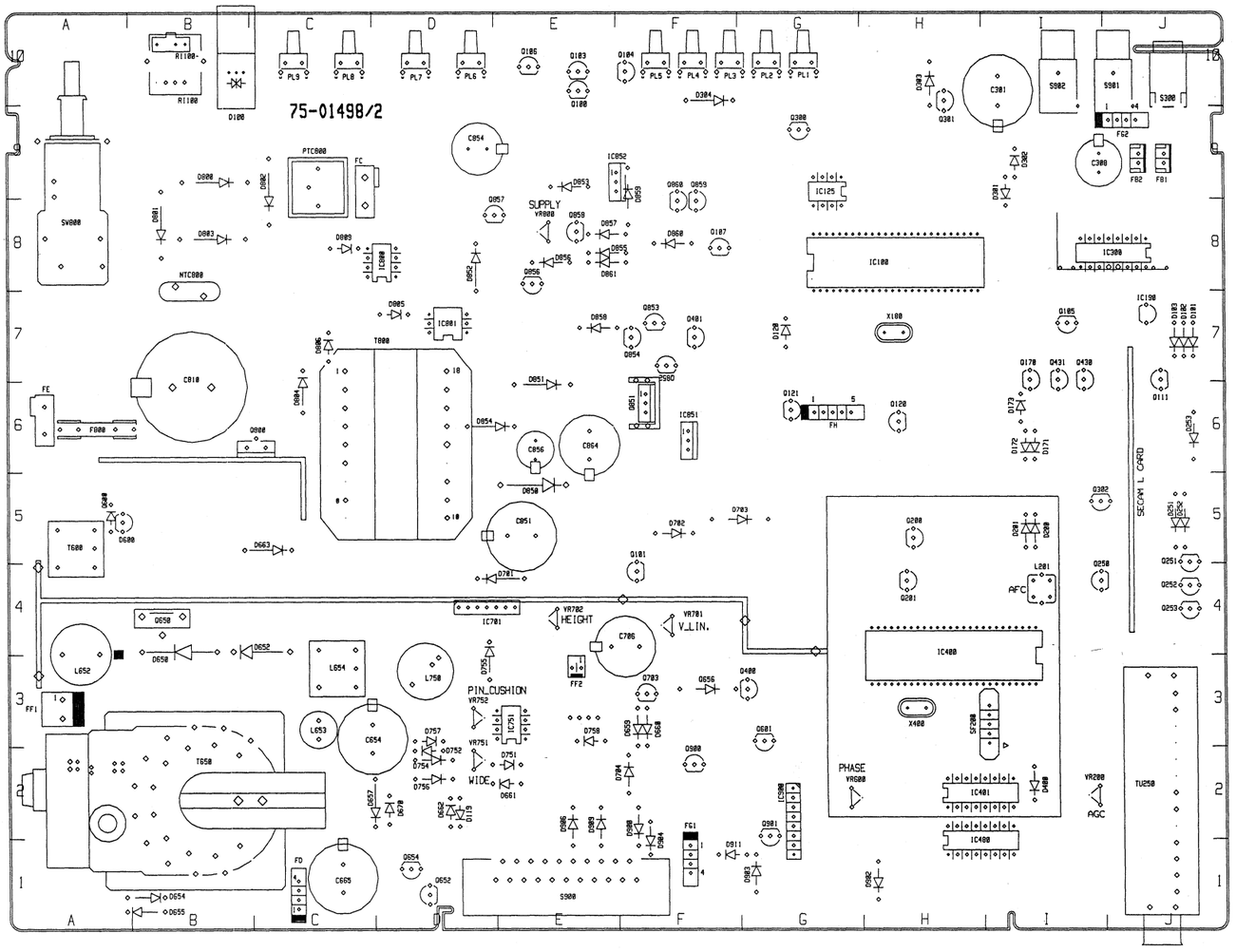
P.C.B. CIRCUITO ZOCALO CARA SOLDADURAS



MAIN CIRCUIT COMPONENTS LOCATION

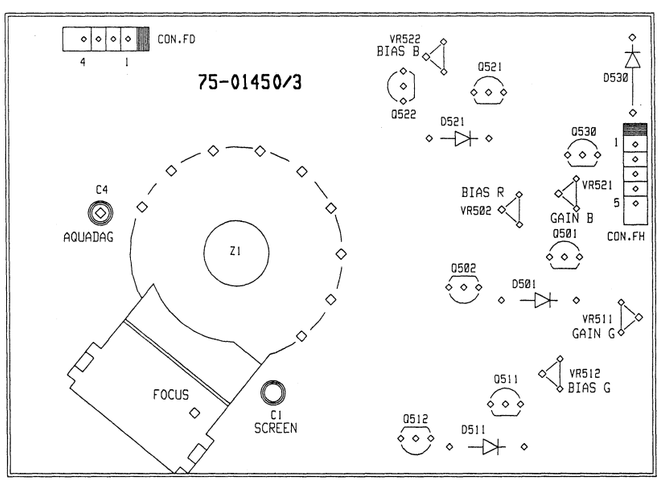
LOCALIZACION DE COMPONENTES CIRCUITO GENERAL

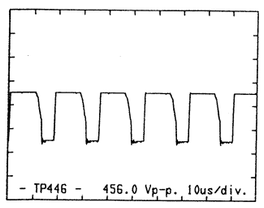


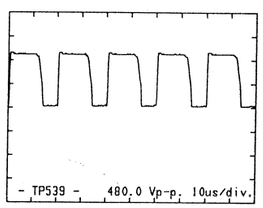


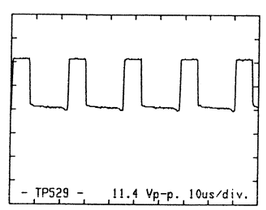
SOCKET CIRCUIT COMPONENTS LOCATION

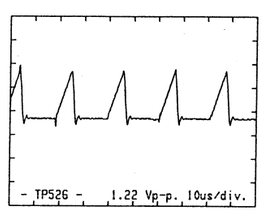
LOCALIZACION DE COMPONENTES CIRCUITO ZOCALO

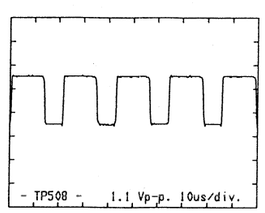


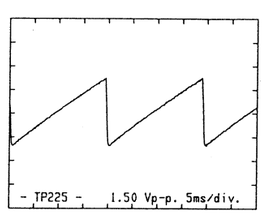


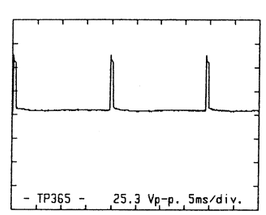


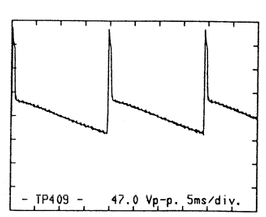


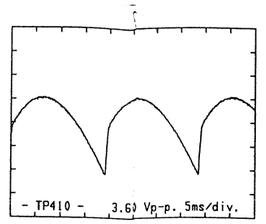


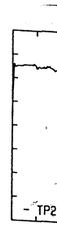












WARNING!!! DO NOT JOIN THE INPUT POWER LINE
TO GROUND THROUGH THE OSCILLOSCOPE

75-1498

MODELS WITH SECAM

TU250
UV 915
75 ohm

IC100
SDA5251-A004

IC125
XL24C02P

IC480
TDA8395

IC400
TDA8361N5
TDA8362N5(SECAM)

IC401
TDA4662
TDA4661V2(SECAM)

SECAM L CARD

Q250
BF370

Q170
JC548B

Q251
JC558B

Q252
JC558B

Q253
JC558B

Q111
JC548B

Q107
JC548B

Q401
JC548B

Q400
JC558B

Q100
JC548B

Q103
JC548B

Q104
JC548B

Q105
PH2369

Q106
JC548B

Q120
JC548B

Q121
JC548B

Q601
JC548B

Q860
JC548B

Q859
JC548B

SF200
2950M

RI100
SBX8030-F

IC150
HZ13-02RE

SANDC

CONTROL 3(7:0)

BUS CONTROL 1(8:0)

-HB 0.3V

-HB 4.3V

-LB 4.3V

STB

KEY

-VID_MUTE

IDENT

-RST

LED_I

ODD/EVEN

F_B

-G/R

BEEP/ACK

PROTECT

SCL

SDA

IR

AFC

SCR

-TEST/CONF

-AV/SVHS/TV

-TV/AV

BRIGHTNESS

CONTRAST

SHARPNESS

VOLUME

PHASE

AFC_OUT

V_DRIVE

H_FLY

+12V_TU

+5V_M

+33V

+8V

3.3V

5.0V

-CF1

-CF2

-LP/L

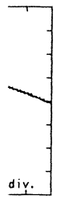
-AV/TV

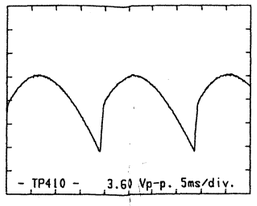
-MODEN

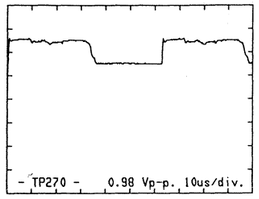
-HDEN

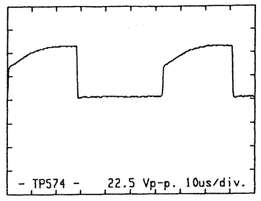
-L+P

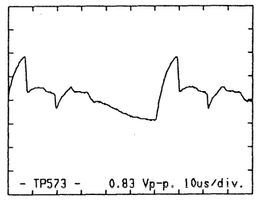
IDENT

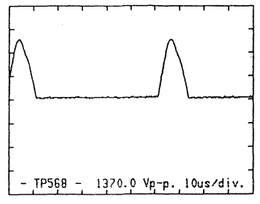


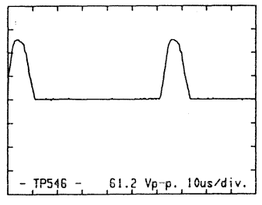


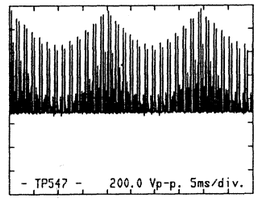


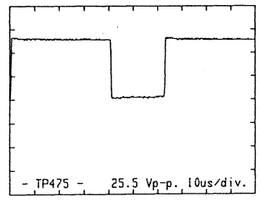


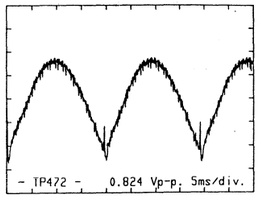


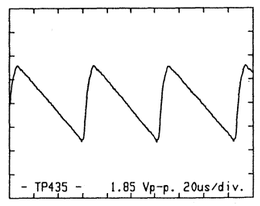


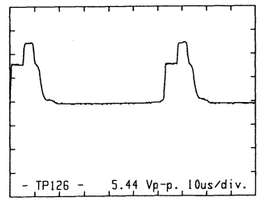


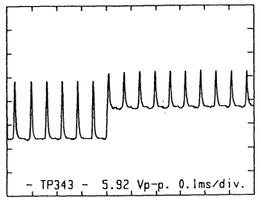


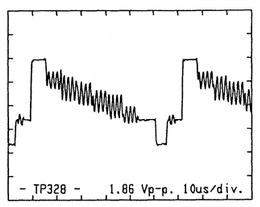


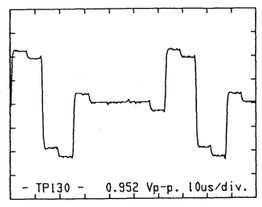


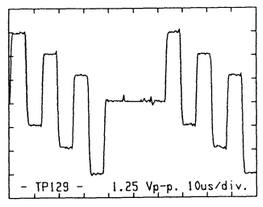


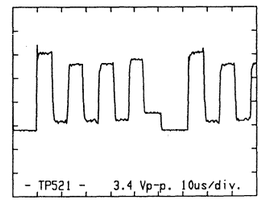


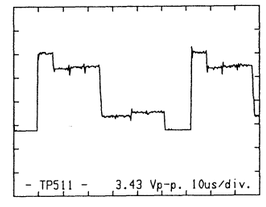


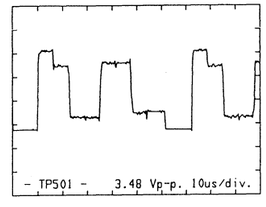


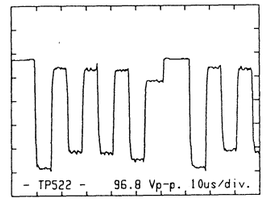


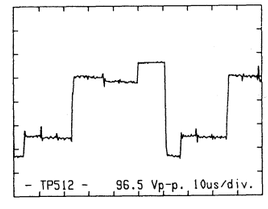


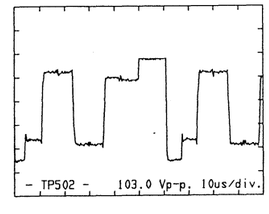








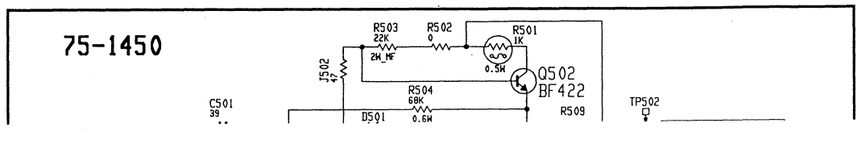


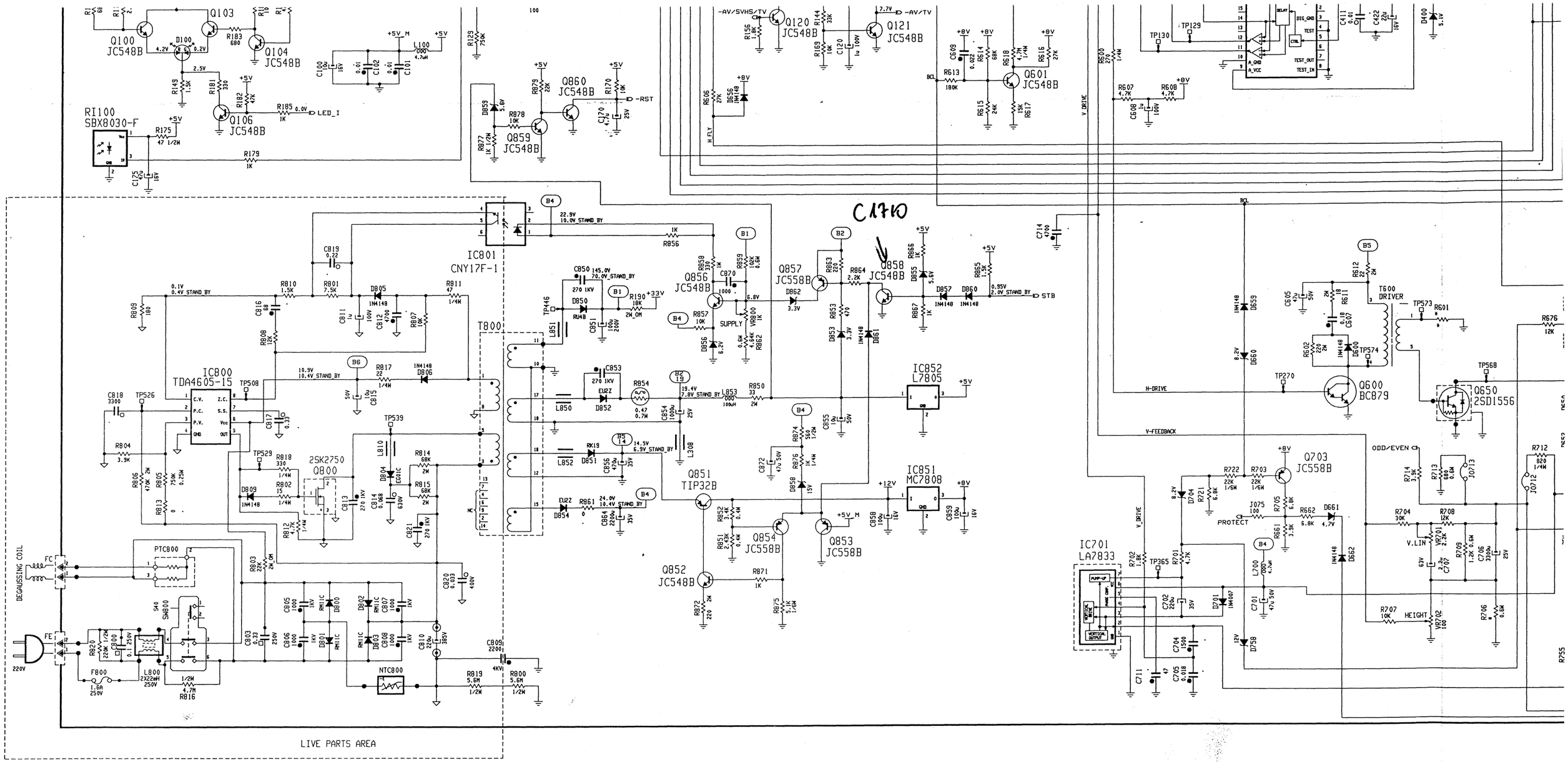


C.R.T / DEVICE	A59ECF50X05 A66ECF50X05	A59EAK071X11 A66EAK071X11	A59EHJ43X38 A66EHJ43X38
R532	12uH	JUMPER	18uH 1.5A
C650	POLYPROPYLENE 39nF 400V	POLYPROPYLENE 33nF 1KV	POLYPROPYLENE 39nF 400V
C651	POLYPROPYLENE 12nF 1.6KV	POLYPROPYLENE 11nF 1.6KV	POLYPROPYLENE 11nF 1.6KV
C652	POLYPROPYLENE 470nF 400V	POLYPROPYLENE 390nF 400V	POLYPROPYLENE 470nF 400V
IC751	TDA4950	TDA8145B	TDA8145B
R601	0.68Ω 0.6W	0.33Ω 1W	0.56Ω 0.6W
R641	3.9Ω 2W	3.9Ω 2W	JUMPER
R706	0.68Ω 0.6W	0.68Ω 0.6W	1Ω 0.6W
+B1	+150V	+145V	+145V
+B3	+180V	+180V	+180V
+B4	+24.5V	+24V	+24V

NOTE: Only the most important changes between differents CRT's application circuits are given. Refer to complete part list included in the service manual for the correct application.

75-1450





SANYO

COLOUR TELEVISION 25"/28"

Models: C2581TX-P
C2881TX-P

Chassis: 2092 (Series EC-4B)

COMPLIANCE TO STANDARDS

When any TV receptor component is substituted, it is necessary to check the list of components in the Service Manual and all of those marked with * or ⚠ must be replaced with original Sanyo parts

WARNING! This TV set contains components which are particulary sensitive to static electricity (ESD). It is recomended that all due precaution be taken handling integrated circuits and semiconductors.

NOTES:

1.-Resistor values are expressed in Ohms
K = 1000 , M = 1000000 .
2.-Capacitor values lower than 1 are expressed in uF and values higher than 1 are expressed in pF.
3.-The information in this scheme is correct at the beginning of the series; SANYO reserves the right to modify this in accordance with on-going product improvement policy.
4.-The measuraments of voltages and oscillograms were carried out with a TV set tuned to channel-21, normal adjustments and colour bar pattern.

Refer to complete part list included in the
service manual for the correct application.

75-1450

ES C2581TX-P

DATE=Jan-22-98

s necessary
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original

and values

eginning of
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e carried
ustments

A59ECF50X05
A66ECF50X05
A59EAK071X11
A66EAK071X11
A59EHJ43X38
A66EHJ43X38

anode
contact (a)

B C E
Q650

B C E
Q851

G D S
Q800

I G O
IC851
IC852

IC701

IC900

IC190

D804

D100

D650

Q250
Q105

CERAMIC

POLYESTER

POLYPROPYLENE

FUSE RESISTOR

IC100
IC400

IC125
IC751
IC800

IC801

IC300
IC401
IC480

Q100	Q502	D101	D600	D757	
Q101	Q511	D102	D652	D758	
Q103	Q512	D103	D654	D800	
Q104	Q521	D119	D655	D801	
Q106	Q522	D120	D656	D802	
Q107	Q530	D171	D657	D803	
Q111	Q600	D172	D659	D804	
Q120	Q601	D173	D660	D805	
Q121	Q652	D220	D661	D806	
Q170	Q653	D251	D662	D809	
Q200	Q654	D252	D663	D850	
Q201	Q703	D253	D670	D851	
Q251	Q852	D301	D701	D852	
Q252	Q853	D302	D702	D853	
Q253	Q854	D303	D703	D854	
Q300	Q856	D304	D704	D855	
Q301	Q857	D400	D751	D856	
Q302	Q858	D501	D752	D857	
Q400	Q859	D511	D754	D858	
Q401	Q860	D521	D755	D859	
Q430	Q900	D530	D756	D860	
Q501	Q901			D861	